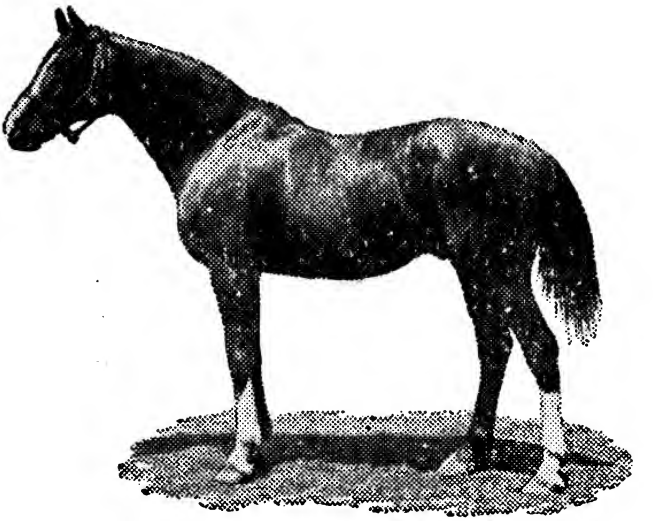
THE HORSE TRAINERS HANDBOOK



HEALTH and MANAGEMENT OF THE HORSE

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THE HORSE

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EARLY HISTORY AND HABITS OF THE HORSE

THE early history and origin of the horse is wrapped in obscurity and fable, and we really know little or nothing of it, except that we have reason to believe that he first came from Asia, like man, and, according to the Mosaic account, all other animals now existing; and that he was used in Egypt more than 1600 years before Christ. But with the history of the horse I shall not encumber this book, which might be enlarged to an enormous extent if this department were entered into at length. Suffice it, then, to discuss the present condition of the horse, and its more recent origin, as now existing in this country, in addition to his general habits.

The habits of the horse in all countries, and of all varieties, are pretty much alike. Wherever he is at large, he is bold but wary, and easily taking note of the approach of man to give him as wide a birth as he possibly can, or rather show him a clean pair of heels. Wild horses exist to the present day in the interior of Asia and in South America. But both the horses of the Tartars and those of La Plata are dsecended from domesticated animals, and can scarcely be called wild in the ordinary acceptation of the term. Indeed, the Californian horses, which are still more recently bred in a wild state from Spanish horses, are quite as wild as those described by Sir F. B. Head. From their constant state of liberty, and their roving habits, in order to obtain food and water, they are inured to fatigue, and can bear an enormous amount of long-continued fast work without failing under it, and with-

out that training which the domesticated animal must have. The walk and the gallop are the horse's natural paces, and all others are acquired; but nothing can excell the fiery animation and elegance of movement of the free horse, and in these two paces art has done nothing to improve his form except perhaps in slightly increasing the speed of the latter. In all countries and in every age the horse feeds upon grain or grass, though it is said that in Arabia he is occasionally supported upon camel's milk when food such as he usually lives upon is not to be had.

It may be useful to specify the terms employed to describe the principal parts of the horse. These details will not prove altogether superfluous, as some of the words we are about to explain not unfrequently occur in conversation.

The two parts of the head of the horse which correspond to the temples in a man, are above the eyes, The eyes themselves have a loose crescentiform fold of the conjunctiva at the inner angle, often erroneously called *membrana nietitans,* but it neither performs its office or possesses its muscular apparatus. The orbit, which is formed of seven bones, four cranial and three facial, contains the globe of the eye, on the inner angle of which is situated the *haw (a).* The figure attached will perfectly supply the means of verifying all these indications. The *eye-pits (b)* are deep indentations which lie between the eyes and the ear, above the eyebrows on each side.*

The *face (c)* is the front of the head from the eyes to the nostrils; this part corresponds to the upper part of a man's nose. This name is, however, generally applied to that portion that surrounds the curl or centre on the forehead from whence the hair radiates.

The neck of the horse is designated by the word *cres. (d),* it is comprised from one end to the other between the mane on the upper side, and the gullet on the lower.

The *forelock (e)* is the portion of the mane which is on the top of the head and falls over on the forehead between the eyes.

The *withers (f)* is the spot where the shoulders meet up above, between the back and the neck, at a point where the neck and the mane come to an end.

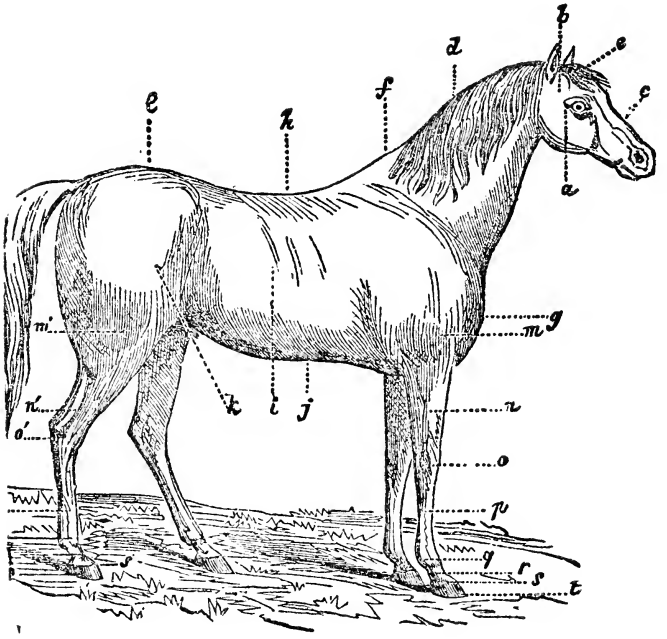
The *chest (g)* is that part which is in front between the shoulders and below the throat.

The *back (h)* commences at the withers and extends all

* The horse possesses a peculiar structure within the eye—the tapetum lucida—of a lustrous green color, by which he is enabled to see objectsin comparative darkness, and especially under his feet.

along the spine as far as the crupper. When the horse is fat, the whole length of the spine forms a kind of hollow, which is said to be *channeled.*

The space which is included within the ribs is called the *barrel (i);* the name of the *stomach (j)* is also given to the lower part of the body which joins the *os sternum* and the bottom of the ribs.



The *flanks* lie at the extremity of the stomach, and extend as far as the hip-bones. The tail is divided into two parts; the stump or *dock,* and the hair.

The upper part of the front leg of the horse is called the *shoulder (m),* although it corresponds with the forearm in a man; the *forearm (n)* follows it lower down.

The joint which is below the forearm is called the *knee (o);* it corresponds to the place of the wrist in man, and forms an angle turning inwards when the leg is bent.

The *shank (p)* forms the second portion of the foreleg; it commences at the kneejoint, and corresponds to the *metacarpus* in man.

Behind the shank is a tendon, which extends from one end to the other, and is called the *back-sinew.*

The *fetlock-joint (q)* is the articulation immediately below the shank.

The *fetlock* itself is a tuft of hair covering a sort of soft horny excresence, which is called the *ergot.*

The *pastern (r)* is the portion of the leg between the fetlock joint and the foot.

The *coronet (s)* is an elevation lying below the pastern, and is furnished with long hair falling over the hoof, all round the foot.

The *hoofs (t)* form, so to speak, the nails of the horse, and consists of a horny substance.

In order to describe the parts which make up the hind legs of the horse, we must go back to the haunches. Each of these contains the *femur,* and corresponds to the thigh of a man. It is, therefore, the thigh of the horse which is joined to the body, and bears the name of buttocks. It is terminated below and in front by the *stifle (k),* which is the joint of the knee containing the kneepan. It is situated below the haunch, on a level with the flank, and shifts its place when the horse walks.

The highest part of the hind leg, which is detached from the body, is called the *thigh* or *gaskins (m),* and corresponds to the leg of a man. It extends from the stifle and lower part of the buttocks down to the *hock (o).*

The hock is the joint which is below the thigh, and bends forward. This joint represents the instep in a man; the hinder part of the hock, which is called the point of the hock, is the *heel.*

Below the hock are the shank, the fetlock-joint, the pastern, and the foot, just the same as in the forelegs.

We will now say a few words as to the diversity of color in the coat of the horse, in order to fix the meaning of the terms which are generally employed to designate the various hues which the coat presents.

Bay is a reddish nut-brown color, with various shades. *Dark Bay* horses are of a very dark brown, almost black, except on the flanks and tip of the nose, where they are of a reddish color. The *golden* or *light bay* is a yellow sun-light hue. *Dappled Bay* horses have on their rumps spots of a darker bay than on the rest of their bodies. In bay horses the extremities, the mane, and the tail are always black.

There are three kinds of black horses; the *rusty black,* which is of a brownish tinge, more or less conspicuous in

various lights; the *black* and the *coal black* which is the darkest of all.

Dun colored horses, of which there are several shades, are of a yellowish sandy hue. The mane and the tail of these are either white or black. Some of the latter have a black line along the vertebra, which is called a *mule's* or *eel-stripe.*

Chestnut is a kind of reddish or cinnamon colored bay. There are several shades of it, among which are the *bright chestnut,* which is the color of a red cow's coat; the *common chestnut,* which is neither dark nor bright; the *bay chestnut,* which verges upon the red; the *burnt chestnut,* which is dark and nearly approaches black. Some chestnut horses have white manes and tails: others, black. The *roan* is a mixture of red and white.

Grey horses have white hair mixed with black or bay. There are several modifications of this color; the *dappled grey,* the *silver grey,* the *iron grey,* etc. Dapple-grey horses have on their backs and other parts of their body a number of round spots, in some cases black; in others, of a lighter hue; these spots are somewhat irregularly distributed. Grey horses as they increase in age become lighter in color, ultimately becoming white.

Piebald and Skewbald horses are white, with large irregular spots and stripes of some other color irregularly arranged. The different kind are distinguished by the color that is combined with the white, as the *piebald* proper, which are white and black; the *skewbald,* which are white and bay; the *chestnut piebald,* which are white and chestnut.

The horses which have small black spots on a white or grey coat are called *flea-bitten,* particularly prevalent in India among Arabs.

We have hitherto considered the wild and domestic horse in common, both as regards their structure and their color—in short, their outward appearance generally—without noticing the different breeds, which must soon occupy our attention. But before we enter upon the study of the various equine races, it is necessary to give a short explanation as to the way in which the bit regulates the paces of the horse. By this we are led to speak of the construction of the mouth, a knowledge of which is most useful.

The horse either walks, trots, gallops or ambles.

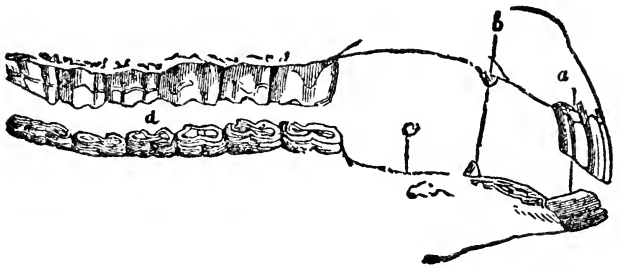
The paces of the horse are essentially modified by means both of the bit and spur. The spur excites a quickness of movement; the bit communicates to this movement a due amount of precision. The mouth of the horse is so sensitive that the least movement or the slightest impression which it

receives, warns and regulates the motion of the animal. But to preserve the full delicacy of this organ, it is highly necessary to treat tenderly its extreme sensibility.

The position of the teeth in the jaw of the horse affords to man the facility which exists of placing a bit in its mouth, by which instrument this high-spirited and vigorous animal is broken in and guided. Let us, therefore, in the first place, study the arrangement of its mouth.

There are in each jaw six incisors or foreteeth, followed on either side by a tush, which is generally deficient in mares, especially in the lower jaw. Next comes a series of six grinders on each side in both jaws; these teeth have a square crown, marked with four crescents, formed by the *laminæ* of enamel which are embedded on them. Between the tushes and grinders there is a considerable space called the *bar*, which corresponds to the angle of the lips, and it is in this interval that the bit is placed.

FIG. 1.- DENTITION OF THE ADULT HORSE.



(*a*). *Incisors.* (*b*) *Tushes or Canines.* (*c*) *Interval called the Bar.* (*d*) *Molars.*

It is also by means of the teeth that we are enabled to know a horses age—a knowledge which is of the highest utility; for a horse increases in value in proportion as he approaches maturity, again decreasing in worth as he becomes older. Up to nine years the age can be determined pretty accurately by means of the changes which take place in the teeth.

The foal, at its birth, is usually devoid of teeth in the front

of the mouth, and has only two grinders on each side in each jaw (Fig.2). At the end of a few days, the two middle fore teeth, or pincers, make their appearance. In the course of the first month a third grinder shows itself, and in four months more the two next fore-teeth also emerge; within six and a half or eight months the side incisives, or corner teeth, show, and also a fourth grinder. At this period the first dentition is complete. The changes which take place up to the age of three years depend only on the fore-teeth being worn away more or less, and the black hollows being obliterated gradually by contact with food. In thirteen to sixteen months the cavities on the surface of the pincers are effaced; they are then said to be razed. In sixteen to twenty months the intermediate fore-teeth are likewise razed, and in twenty to twenty-four months the same thing takes place with the corner teeth.

FIG. 2.

AT EIGHTEEN DAYS.

FIG. 3.

AT THREE YEARS.

The second dentition commences at the age of two and a half or three years (Fig. 3). The milk-teeth may be recognized by their shortness, their whiteness, and the construction round their base, called the neck of the tooth. The teeth which replace them have no neck, and are much larger. The pincers are the first to fall out and be replaced by new ones. At the age of from three years and a half to four years the intermediate fore-teeth experience the same change, and the lower tushes begin to make their appearance. The corner teeth are also renewed when between four and a half to five years; the upper tushes likewise pierce the gums, and about the same date the sixth grinder shows itself.

ises to the child, he will expect exactly what you promise. Here proof becomes faith, because he has never been deceived by the want of performance. Even among men the principle is the same. That man, who is always found truthful, and who performs exactly as he promises to do, becomes a standard of public confidence and trust; but he who disregards truth and the principles of honor, becomes an object of suspicion to all knowing him. As the child, then, is the reflex of the love and truth of the parents in confidence, and the public in him of undoubted integrity—so are we forced to believe the horse becomes in the character of his habits what he is, in exact proportion to the teaching and example to which he may have been subject.

How to Feed, Water and Drive

Do not feed or water heavy before driving, filling the stomach with water and food; water destroys the juices of the stomach, weakening digestion. The grain becomes swollen and generates a gas, filling the stomach with wind; the stomach becoming diseased, the Bot will work his head into the coating of the stomach. All grain will digest best while the horse is standing still; and all food that passes off without digestion weakens the action of the stomach and bowels, and, in many cases, will scour the horse. The less you feed before driving the better. Then again, you should water very little on the road. Feed mostly at night; food will then all digest and make flesh and blood. I should advise not more than two quarts in the morning, and the same at noon. I do not feed in the morning, neither do I water. If I was going to make a long and fast drive, I should feed twelve quarts the night before, then my horse would be strong, and feel light and active, and do his work easy. By giving him a little water, the horse will fully digest what he has eaten; if you weaken the juices, of course you weaken digestion. A horse should only be fed what he can easily digest. I think by so doing you will save one third of the grain formerly given. Diseases are caused by too much food and water; the water destroys the juices, and disables digestion; by feeding most of the grain whilst the horse is at rest, it will fully digest, and leave the horse strong and able to do his work.

Giving a great amount of water, diseases the blood and deadens the hair. The water must pass in some way; it can't all pass in the urine, and it passes off through the pores of the skin, and causes the hair to become gummed, and makes the horse very hard to clean. So much water passing off through the pores of the flesh destroys the roots of the hair, and causes it to look dull and faded; then, again, you should be cautious

not to drive your horse in cold water, when warm, or throw water on him; so doing, chills the blood, separates the blood from the watery substances that the blood forms from, and causes disease, the skin will become full of small tumors and the hair fall off. By avoiding too much water on the road, and too much food before driving, and by keeping the horse warm after driving, you avoid disease.

Special Advice in Reference to Feeding Horses

Never give a horse whole grain. Bruising and wetting it with soft water, you save thirty per cent of its nutritious effects. Steam it in preference to wetting, if you have facilities for doing so. Feed your horse two hours before he begins his day's work. Give him the largest feed at night. Never tie him to a rack; it is cruel to thus prevent a horse from lying down when he is tired. The best way is to take away your rack altogether, and arrange your stable so as to make it unnecessary to tie up the horse. The stable should always be dry and well littered. Never give your horse hard water, if soft water is to be had. If you cannot get soft water, draw the hard water out of the well two hours before you let him drink it. Beans should be full a year old before they are fit to feed horses; they should be bruised, the same as grain, not ground.

Horse Feed Mixture

YOUATT recommends for horse feed, the following mixture: Cut hay, two parts; cut straw, three parts—add to this a quantity of bruised beans, oats, or other grain—wet the whole with soft water, and mix it well. Do not feed your horse too much hay, as it is not only a waste of provender, but when he is put to work with an overloaded stomach it endangers his wind. If left to pull hay out of the rack at pleasure, a horse will eat or waste some thirty pounds a day, whereas, by cutting up his hay and mixing it with other feed, as above described, ten pounds is an ample abundance for twenty-four hours. Horses, when worked, should be fed three or four times a day with a mixture of hay, straw, and grain as above described. Give them their food in the manger—be careful that it is sweet and clean. By following these rules, horses will always be in good condition—will not have that swelled belly so peculiar to animals who are allowed to fill their stomachs with hay—and will usually enjoy good health.

How to get a Colt from Pasture

Go to the pasture and walk around the whole herd quietly, at such a distance as not to cause them to scare or run. Then

approach very slowly; if they stick up their heads and seem to be frightened, hold on till they become quiet, so as not to run them before you are close enough to drive them in the direction you want them to go. When you begin to drive, do not flourish your arms or halloo, but gently follow them off, leaving the direction free you wish them to take. Thus taking advantage of their ingnorance, you will be able to get them in the pound as esaily as the hunter drives the quails into his net. For if they have always run in the pasture uncared for (as many horses do in prairie countries and on large plantations) there is no reason why they should not be as wild as the sportsman's birds, and require the same gentle treatment, if you want to get them without trouble; for the horse, in his natural state, is as wild as any of the undomesticated animals, though more easily tamed than most of them.

How to Stable a Colt

The next step will be to get the horse into a stable or shed. This should be done as quietly as possible, so as not to excite any suspicion in the horse of any danger befalling him. The best way to do this, is to lead a broken horse into the stable first and hitch him, then quietly walk around the colt and let him go in of his own accord. Be extremely deliberate and slow in your movements, for one wrong move may frighten your horse, and make him think it necessary to escape at all hazards for the safety of his life—and thus make two hour's work of a ten minutes' job; and this would be all your own fault, and entirely unnecessary—for he will not run unless you run after him, nor will he try to break away unless you attempt to force him into measures. If he does not see the way at once, and is a little fretful about going in, do not undertake to drive him, but give him a little less room outside, by gently closing in around him. Do not raise your arms, but let them hang at your side, for you might as well raise a club; the horse has never studied anatomy, and does not know but they will unhinge themselves and fly at him. If he attempts to turn back, walk before him, but do not run; and if he gets past you, encircle him again in the same quiet manner, and he will soon find that you are not going to hurt him; and then you can walk so close around him that he will go into the stable for more room, and to get farther from you. As soon as he is in, remove the quiet horse and shut the door. This will be his first notion of confinement—not knowing how he got into such a place, nor how to get out of it. That he may take it as quietly as possible, see that the shed is entirely free from dogs, chickens, or anything that would annoy him. Then give a few ears of corn, and let him remain alone fifteen

or twenty minutes, until he has examined his apartment, and has become reconciled to his confinement. And now, while your horse is eating those few ears of corn, see that your halter is ready and all right, and reflect upon the best mode of operations; for in horse-breaking, it is highly important that you should be governed by some system.

Objects of Fear—How to Prevent Fear

Whatever the horse understands to be harmless he does not fear; consequently great pains should be taken to cause him to examine and smell such things as are likely to frighten him in after life. This should be attended to in his early education, since early impressions are strong in the horse. A log or stump by the roadside, if regarded with suspicion, should be approached slowly or cautiously; to the imagination of the horse, such things are supposed to be some great beast that may spring upon him, but which he will soon comprehend to be harmless if obliged to examine its nature in his own way, by advancing to the object and allowing him to understand it fully by smelling and breathing with the nose. The boy frightened by a false face will care nothing about it after he takes it in his hands and examines it; and the principal is the same in familiarizing horses to objects of fear.

If your horse is frightened at an umbrella, you can soon learn him to be used to that. Go into the stable with him, and first let him look at the umbrella before it is opened—let him touch it with his nose. Open it a little way and then let him see it; and finally open it wide. By ordinary patience you can soon learn the horse to have the umbrella opened suddenly in his face, without being afraid of it. By a similar treatment you can break any horse from scaring at almost any thing that may look frightful to him. If you wish to make a trial of this theory, just take a horse into the stable and let him examine the frightful object a few minutes after his mode of examining things, and you will be perfectly satisfied. There is a singular fact connected with taming the horse that I would have never believed if I had not tried it. If you accustom him to any particular object by showing it to him on one side only, he will not be afraid when he sees it with the eye on that side; but he will be afraid if you approach him with it on the other side. It is, therefore, necessary to pacify him on both sides in all cases. After you have accustomed him to the umbrella, or whatever you may wish to make him familiar with, on his right side, repeat the operation on the left side in the same manner as if you had not approached him at all.

The Kind of Halter to be Used, and How to Put It On the Colt

Never use a rope halter. The cords of the rope are hard, and appears to aggravate and excite distrust rather than confidence; but by all means procure a leather halter made of bridle leather, so it will feel soft and pliable to the touch, and to fit tolerably tight on the head, so as not to feel uncomfortable. Before putting a halter on the colt, he must be rendered familiar with it by carressing him and permitting him to examine the article with his nose. Then place a portion of it over his head, occasionally giving it a slight pull, and in a few minutes he will be accustomed to these liberties, and then the halter may be fastened on properly. To teach him to lead is another difficulty. Stand a little on one side, rub his nose and forehead, take hold of the strap and pull gently, and at the same time touch him very lightly with the end of a long whip across his hind legs. This will make him start forward a few steps. Repeat the operation several times and he will soon learn to follow you by simply pulling the halter. The mouth of the colt should be frequently handled, after which introduce a plain snaffle between his teeth and hold it there with one hand while you caress him with the other. After a time he will allow the bridle to be placed upon him. The saddle can then be brought in and rubbed against his nose, his neck, and his legs; next hang the stirrup strap across his back, and gradually insinuate the saddle into its place. The girth should not be fastened, until he becomes thoroughly acquainted with the saddle. The first time the girth is buckled, it should be done so loosely as not to attract his attention; subsequently it can be tightened without inspiring him with fear, which, if fastened immediately, it would most certainly do. In this manner the wildest colt can be effectually subjugated by such imperceptible degrees that he gives tacit obedience before he is aware of his altered condition.

To Break a Horse to Harness

Take him in a tight stable, take the harness and go through the same process as you would with the saddle, until you get him familiar with them, so you can put them on his back and rattle them about without his caring for them. As soon as he will bear them, put on the lines, caress him as you draw them over him, and drive him about in the stable till he will bear them over his hips. The lines are a great aggravation to some colts, and often frighten them as much as if you were to raise a whip over them. As soon as he is familiar with the harness and lines, take him out and put him by the side of a gentle

horse, and go through the same process that you did with the blinds when you are breaking a horse to harness.

After fixing the lines, then hitch the horse to a small log that he can draw very easy, with long traces, frequently turning him, so that the traces will draw lightly against his legs—frequently stopping and petting him; then hitch him to something heavier; then get behind him and drive him. By thus working with him you will make a strictly true horse of him—he also gets so that he is not afraid of the traces or harness. You can then proceed to hitch him to a buggy or wagon. Persons should not drive fast at first hitching a colt in harness—he should be handled very careful at first. In handling colts in this way you will have no trouble with them, but will have a much better broke horse, and one that would be more safe for a family. A horse broken in this way is not half so easily spoiled as one broken by any other process.

In breaking horses to ride they should be handled in very much the same way as I have spoken of. After biting them sufficiently you may proceed to saddle them; then ride them over two or three miles at a time—not enough to tire them.

To Break Horses to Stand the Fire of a Gun

You commence by administering the three articles first mentioned in the nostrils this will prevent him from smelling the powder. Then load your pistol—but very light, so as to make the report as light as possible; every time you fire, give him a small piece of an apple, with some powder on it; then rub and pat him on the head and neck. When you first commence firing, stand close to the horse's shoulders, rest your arms on his withers. After you have fired a sufficient number of times mount the horse and shoot from his back. Keeping up this practice for a short time, the horse will get so that he will not care anything about the fire of a gun at any time or place.

Necessity of Repetition of Lessons and a Thorough Training

The horse must be convinced by repeated proofs of being over-matched that resistance is useless. For since his willingness and rebellion are each based upon the limited reasoning of his experience, he must be thoroughly convinced by experience that unconditional submission is the only alternative; this you cannot prove to the understanding of the horse without repeating your lessons until he submits unconditionally. But as nursing and care is to the patient over the force of disease, so is the subjugation of the horse—his submission should be encouraged and rewarded by kindness, and feeding from

the hand with little presents of such things as he likes. That master is supreme in his control, and submission to his commands becomes a pleasure, who has the power to enforce his will, but who exercises it with the sweetening encouragement of love. While force is necessary, and you have the means of making your horse almost a plaything in your hands, let the silken cord of love be the cement that fixes and secures this submission to your will. A good-natured, clever man, it is admitted, can teach a horse almost anything, and it has become a proverb that kindness will lead an elephant by a hair. Show your horse exactly what you want him to do, and endeavor to use the patience and reason in teaching and controlling him, you would believe necessary for yourself to understand if placed in like circumstances. Ignorant of the language and intentions of such a teacher, who even preserved his patience, and refrained from abuse, what progress would you make as a pupil—gifted as you are with all your intelligence? If possible, ennoble and elevate your feelings by realizing your responsibility to yourself, to the community, and to the noble animal committed to your charge. Make your horse a friend by kindness and good treatment. Be a kind master, and not a tyrant—make your horse a willing servant, and not a slave.

How to Proceed with the Colt after Haltering

The first time you halter a colt you should stand on the left side, pretty well back to his shoulder, taking hold of that part of the halter that goes around his neck, then with your two hands about his neck you can hold his head to you, and raise the halter on it without making him dodge,, by putting your hands about his nose. You should have a long rope or strap ready, and as soon as you have the halter on attach this to it; so that you can let him walk the length of the stable without letting go the strap, or without making him pull on the halter, for if you only let him feel the weight of your hand on the halter, and give him more rope when he runs from you, he will never rear, pull or throw himself, yet you will be holding him all the time, and doing more towards gentling him than if you had the power to snub him right up, and hold him to one spot; because he knows nothing about his strength, and if you don't do anything to make him pull, he will never know what he can do in that way. In a few minutes you can begin to conrtol him with the halter, then shorten the distance between yourself and the horse by taking up the strap in your hand. As soon as he will allow you to hold him by a tolerably

short strap, and to step up to him without flying back, you can begin to give him some idea about leading.

But to do this, do not go before him and attempt to pull him after you, but commence by pulling him very quietly to one side. He has nothing to brace either side of his neck, and will soon yield to a steady, gradual pull of the halter; as soon as you have pulled him a step or two to one side, step up and caress him, and then pull him again, repeating this operation until you can pull him in every direction, and walk about the stable with him; this you can do in a few minutes, for he will soon think when you have made him step to the right and left a few times, that he is compelled to follow the pull of the halter, not knowing that he has the power to resist your pulling; besides you have handled him so gently that he is not afraid of you, but rather likes you. After you have given him a few lessons of this kind, at proper intervals, he will be so tame that if you turn him out to pasture, he will come up to you to be caressed every opportunity he gets.

While training him in the stable, you should lead him about some time before you take him out, opening the door, so that he can see out, leading him up to it and back again, and then past it. See that there is nothing on the outside to make him jump when you take him out, and as you go out with him, try to make him go very slowly, catching hold of the halter close to the jaw with your left hand, while the right is resting on the top of his neck, holding to his mane. Do not allow anyone to be present or in sight, during your operations, either in or outside the stable. If you are entirely alone, and manage your colt rightly, you will soon be able to lead and hold him as easily as you could a horse already broken.

Do Not Try To Force The Colt If Excited

When excited the colt is not in a condition to understand what you require of him, or to be submissive. You should also be careful not to train the colt until he becomes heated and confused. But little should be required at a time, and hold to that point until you gain it thoroughly before you undertake to do more. For example: in making a colt follow, if he submits ever so little, caress and reward him for it, and so continue and you will have no trouble.

When you resort to force do it sharply, so as to impress him as much as possible with your power.

How to Proceed if a Colt is Stubborn

If the animal you are operating upon seems to be a stubborn or mulish disposition rather than wild; if he lay back his ears as you approach him, or turn his heel to kick you, he has not

that regard or fear of man that he should have, to enable you to handle him quickly and easily; and it might do well to give him a few sharp cuts with the whip, about the legs, pretty close to the body. It will crack keen as it plies about the legs, and the crack of the whip will affect him as much as the stroke; besides, one sharp cut about the legs will affect him more than two or three over the back, the skin on the inner part of the legs or about his flanks being thinner, and more tender than on his back. Do not whip him much; only just enough to scare him; it is not to hurt the horse that we whip him; we do it to scare bad disposition out of him. But whatever you do, do quickly, sharply and with a good deal of fire, but always without anger. If you go to scare him at all, you must do it at once. Never go into a pitched battle with your horse, and whip him until he is mad, and will fight you: you had better not touch him at all, for you will establish, instead of fear and regard, feelings of resentment, hatred, and ill-will. It will do him no good, but harm, to strike him, unless you frighten him; if you succeed in frightening him, you can whip him without making him mad; for fear and anger never exist together in a horse, and as soon as one is visible, you will find that the other has disappeared. As soon as you have frightened him, so that he will stand up straight and pay some attention to you, approach him again and caress him a good deal more than you whipped him; thus you will excite the two controlling passions of his nature, love and fear; he will love, and fear you too; and as soon as he learns what you require, he will obey quickly.

If the colt is of too mulish a disposition to yield to careful and gentle treatment, as here given, you must resort to the several measures recommended for taming vicious horses.

To Make a Colt Follow Under the Whip

After the colt comes around to you readily by pulling a little on the halter, and follows freely, take your whip in the right hand; pull upon the halter a little saying: "Come here, Sir!" And at the same time tap lightly with the whip over the hips; he will come to you mainly because you have taught him to yield to a slight pull upon the head, and will come to you at this signal, and because he wishes to get away from the touch of the whip behind. As soon as he comes to you, caress him and feed him from the hand with something he likes; repeat this, each time pulling upon the halter, until he will come to you as readily by tapping with the whip as he did at first to the halter. Now, instead of hitting with the whip, commence by snapping it behind him; if he comes, caress and encourage as before, and so repeat, at each time increasing the

distance from him, until he will follow or come to you quickly by cracking the whip.

A few lessons of the foregoing kind, will make him run after you, when he sees the motion of the whip—in twenty or thirty minutes he will follow you around the stable. After you have given him two or three lessons in the stable, take him in a small lot and train him; and from thence you can take him into the road, and make him follow you anywhere and run after you.

How To Make a Horse Stand Still Without Hitching

After you have well broken him to follow you, stand him in the centre of the stable—begin at the head to caress him, and gradually work backwards. If he moves, give him a cut with the whip, and put him back to the same spot from where he started. If he stands, caress him as before, and continue gentling him in this way until you can get around him without making him move. Keep walking round him, increasing your pace, and only touch him occasionally. Enlarge your circle as you walk around, and if he then moves, give him another cut with the whip and put him back to his place. If he stands, go to him frequently and caress him, and then walk round again. Do not keep him in one position too long at a time.

How to Lead a Colt with a Broke Horse

If you should want to lead your colt by the side of another horse, you must first put the horse into a stable with the colt. You first attach a second strap to the colt's halter, and lead your horse up along side of him. Then get on the broke horse, and take one strap round his breast under the martingale, (if he has any on), holding it on your left hand. This will prevent the colt from getting back too far; besides you have more power to hold him, with the strap pulling against the horse's breast. The other strap take up in your right hand to prevent him from running ahead; then turn him about in the stable, and if the door is wide enough, ride out with him in that position; if not, take the broke horse out first, and stand his breast up against the door, then lead the colt to the same spot and take the straps as before directed, one on each side of his neck, and then let some one start the colt out, and as the colt comes out, turn your horse to the left, and you will have them right. You can manage any kind of a colt this

way, without trouble; for, if he tries to run ahead or pull back, the two straps will bring the two horses facing each other, so that you can very easily follow up his movements without doing much holding, and as soon as he stops running backward, you are right with him and all ready to go ahead. If he gets stubborn and does not want to go, you can remove all his stubbornness by riding your horse against his neck, thus compelling him to turn to the right; and as soon as you have turned him about a few times, he will be willing to go along. The next thing, after you are through leading him, will be to take him into a stable and hitch him in such a way as not to have him pull on the halter.

How to Lead a Colt Into a Stable

You should lead a broken horse into the stable first, and get the colt, if you can to follow in after him. If he refuses to go, step up to him, taking a little stick or switch in your right hand; then take hold of the halter close to his head with your left hand, at the same time reaching over his back with your right arm so that you can tap him on the opposite side with your switch; bring him up facing the door, tap him slightly with your switch, reaching as far back with it as you can. This tapping, by being pretty well back, and on the opposite side, will drive him ahead, and keep him close to you; then by giving him the right direction with your left hand you can walk into the stable with him. I have walked colts into the stable this way in less than a minute, after men had worked at them half an hour, trying to pull them in. If you cannot walk him in at once in this way, turn him about and walk him around awhile until you can get him up to the door without pulling at him. Then let him stand a few minutes, keeping his head in the right direction with the halter, and he will soon walk in of his own accord. Never attempt to pull the colt into the stable; that would make him think at once that it was a dangerous place, and if he was not afraid of it before he would be then. Besides, we do not want him to know anything about pulling on the halter. If you want to tie up your colt, put him in a tolerably wide stall, which should not be too long, and should be connected by a bar or something of that kind to the partition behind it; so that, after the colt is in he cannot go far enough back to take a straight, backward pull on the halter; then by tying him in the centre of the stall, it would be impossible for him to pull on the halter, the partition behind preventing him from going back, and the halter in the centre checking him every time he turns to the right or left. In a stall of this kind you can break any horse to stand tied with a light strap, anywhere, without his ever know-

ing anything about pulling. For if you have broken your horse to lead, and have taught him the use of the halter (which you should always do before you hitch him to anything), you can hitch him in any kind of a stall, and if you give him something to eat to keep him up to his place for a few minutes at first, there is not one colt in fifty that will pull on his halter, or ever attempt to do so.

This is an important feature in breaking the colt, for if he is allowed to pull on the halter at all, and particularly if he finds out that he can break the halter, he will never be safe.

THE EUREKA BRIDLE

The most powerful means of learning a colt to lead is by the use of what is designated or called the EUREKA BRIDLE.

How to Make the Eureka Bridle

Take a cotton cord made of fine yarn such as is sometimes used for a bed cord or clothes line, usually about three eighths of an inch thick. If you cannot get cotton cord, hemp or anything of the kind that is strong enough will answer the purpose. Let it be about fifteen feet long, tie one end into a hard knot, just as you would to prevent its raveling; tie another knot about ten inches or little more from the one on the end, but before you draw it tight, put the knot on the end through. You now have a loop that will not slip, made on the same principle that a rope is tied around the neck of a horse to hitch with, so as not to tighten upon the neck by pulling upon it. This loop should be just large enough to slip over the under jaw of the horse you wish to train; put this loop over the lower jaw, then, while standing on the near side, take the cord in the left hand and bring over the neck by passing the left hand under the neck to the opposite side towards the mane, bring the right hand over the neck and take the cord from the left and pass back to the loop, and put through from the top side, until the part over the neck is drawn down like a check-rein; now take hold of the end of the rein, and you will find you have a means of power in it that makes the strongest horse almost a plaything in your hands.

The objection to the use of the Eureka Bridle in the training of the innocent colt, is, that the ignorant are inconsiderate in its use. Instead of using it with the utmost mildness a little resistance on the part of the colt is made an excuse to use

it in the most severe manner, until the colt either submits unconditionally, or becomes so desperate with pain as to be entirely reckless and regardless of the utmost efforts.

When your horse resists too much you will always find it to your advantage to put him away for a short time until he becomes cool. In fact, the great secret of training is in not train- too long, and repeating. If you intend using the Eureka Bridle as a means of subduing your colt, put it on after you tamper him on three legs, with the strap over the back. As soon as he submits cleverly to this step, instead of fastening up the leg as by the method already described, take off your strap. Then put on the Eureka Bridle gently, when step to one side and back, and say: "Come here sir!" pulling a very little upon the bridle, just enough to bring his head towards you a little. Now step up to him and pat him on the neck, and say, "You are a fine fellow." Then try again in the same way, and so repeat until he will come to you quite freely. You may increase your force upon the bridle in proportion to his submission, but not if he show stubbornness. You may then step to the other side and repeat the lesson until he will come to you either way cheerfully. Now you wish him to follow you; continue your training in this way, gradually pulling a little more on a line with his body, until he will follow as well ahead as he does sideways.

How to Break Horses to Ride

If a colt, you must first supple the muscles of the back before permitting much weight to be carried. You must keep in mind that he is not accustomed to carry weight, and that to put one hundred and fifty pounds on would be entirely wrong. You must give the colt to understand that you are his friend. It will require but a few days to supple the muscles of the neck and back; then you have a horse that will guide easily. After the first three days, the horse will carry one hundred and twenty-five pounds easier than at first he would carry forty.

You will now fasten the saddle on, but not too far forward; buckle the girths tight, and let him remain a few moments; then approach him gently, pat him on the neck, and draw up the reins tight, with the left hand to the withers; put the foot in the stirrup, and bear gently on the saddle, then pat him gently on the back and rump, speaking very low during the time. Then rise gently, throwing the right leg over the saddle, and sit perfectly still for a few moments; then dismount and caress him, patting his head and back, after doing so a few times he will be as submissive as a lamb.

As to Handling the Feet of a Horse

Should the colt refuse to have his feet handled, he may be made to submit by reproving with the bridle and putting a small strap on the hind foot, then pull on this strap and bring the foot up; then at the moment he kicks, bring down on the mouth sharply with the bridle. In a short time he will submit to your control unconditionally. The same principle applies to the use of this under all circumstances. It is a means of reproof, and certainly has a powerful effect upon a horse.

How to Teach a Horse to Pace

First take nine or ten pound of lead, divide in four parts, equal to three and three-quarter inches, by four and a half in size; make two holes in each end of these leads, then fasten two of them together and have them padded. Then fasten them on the horse's legs, one on each hind leg, just above the ankle joint. Ride your horse briskly with those weights upon his ankles, at the same time pulling each rein of the bridle alternately. By this means you immediately throw him into a pace. After you have in this way trained him to some extent, change your leaden weights to something lighter; leather paddings, or something equal to it will answer the purpose. Let him wear those weights until he is perfectly trained. By adopting this plan, you will speedily make a smooth and easy pacer of any horse.

Management of Wild Horses

Cause your horse or colt to be put in a small yard, stable, or room. If in a stable or room, it ought to be large in order to give some exercise with the halter before you lead him out. If the horse belongs to that class which only appears to fear man, you must introduce yourself gently into the stable, room, or yard where the horse is. He will naturally run from you, and frequently turn his head towards you; but you must walk about extremely slow and softly, so that he can see whenever he turns his head towards you which he never fails to do in a short time—in a quarter or half an hour. I never knew one to be much longer without turning his head towards me. At the very moment he turns his head, hold out your left hand towards him, and stand perfectly still, keeping your eyes upon the horse, watching his motions, if he make any. If the horse does not stir for ten or fifteen minutes, advance as slowly as possible, and without making the least noise, always holding out your left hand. If the horse makes the least motion when you advance towards him, stop and remain perfectly still until

he is quiet. Remain a few moments in this condition, and then advance again in the same slow and almost imperceptible manner. If the horse then stirs again, stop without changing your position. It is very uncommon for the horse to stir more than once after you begin to advance; yet there are some exceptions. He generally keeps his eyes steadfast upon you until you get near enough to touch him on the forehead. When you are thus near to him, raise slowly and by degrees your hand, and let it come in contact with that part just above the nostrils, as possible. If the horse flinches (as many will), repeat with great rapidity these light strokes upon the forehead, going a little further up towards his ears by degrees, and descending with the same rapidity until he will let you handle his forehead all over. Now let the strokes be repeated with more force over all his forehead, descending by lighter strokes to each side of his head, until you can handle that part with equal facility. Then touch in the same light manner, making your hands and fingers play around the lower part of the horse's ears, coming down now and then to his forehead, which may be looked upon as the helm that governs all the rest.

Having succeeded in handling his ears, advance towards the neck, with the same precautions and in the same manner; observing always to augment the force of the strokes whenever the horse will permit it. Perform the same on both sides of the neck, until he lets you take it in your arms without flinching.

Proceed in the same progressive manner to the sides, and then to the back of the horse. Every time the horse shows any nervousness, return immediately to the forehead, as the true standard, patting him with your hands, and thence rapidly to where you had already arrived, always gaining ground a considerable distance farther on every time this happens. The head, ears, neck, and body being thus gentled, proceed from the back to the root of the tail.

This must be managed with dexterity, as a horse is never to be depended on that is skittish about the tail. Let your hand fall lightly and rapidly on that part next to the body a minute or two, and then you will begin to give it a slight pull upwards every quarter of a minute. At the same time you continue this handling of him, augment the force of the strokes as well as the raising of the tail, until you can raise it and handle it with the greatest ease, which commonly happens in a quarter of an hour in most horses, in others almost immediately, and in some much longer. It now remains to handle all his legs; from the tail come back again to the head—handle it well, as likewise the ears, breast, neck, etc., speaking now

and then to the horse. Begin by degrees to descend to the legs, always ascending and descending, gaining ground every time you descend until you get to his feet.

Talk to the horse while you are thus taming him; let him hear the sound of your voice, which at the beginning of the operation, is not quite so necessary, but which I have always done in making him lift up his feet. "Hold up your foot," you will say, at the same time lifting up his foot with your hand. He soon becomes familiar with the sounds, and will hold up his foot at command. Then, proceed to the hind feet, and go on in the same manner; and in a short time the horse will let you lift them, and even take them up in your arms.

All this operation is no magnetism, no galvanism; it is merely taking away the fear that the horse generally has of man, and familiarizing the animal with his master. As the horse doubtless experiences a certain pleasure from this handling, he will soon become gentle under it, and show very marked attachment to his keeper.

The Kind of a Bit to Use and How to Use It

To accustom a colt to the bit, you should use a large, smooth snaffle, so as not to hurt his mouth, with a bar at each side to prevent it from pulling through either way. This should be attached to the headstall of your bridle, and put it on your colt without any reins to it, and let him run loose in a large stable or shed some time, until he becomes a little used to the bit, and will bear it without trying to get it out of his mouth. Repeat this several times before you do anything more with the colt; and as soon as he will bear the bit, attach a single rein to it, without any martingale. You should also have a halter on your colt, or a bridle made after the fashion of a halter, with a strap to it, so that you can hold or lead him about without pulling much on the bit.

Farmers often put bitting harness on a colt the first thing they do to him, buckling it on as tight as they can draw it, to make him carry his head high, and then turn him out in a lot to run half a day at a time. This is one of the very worst punishments they can inflict on a colt, and is very injurious to a young horse that has been used to running in pasture with his head down. I have seen colts so injured in this way that they never got over it.

A horse should be well accustomed to the bit before you put on the bitting harness, and when you first bit him you should only rein his head up to the point where he naturally holds it, let that point be high or low; he will soon learn that he cannot lower his head, and that raising it a little will loosen the bit in

his mouth. This will give him an idea of raising his head to loosen the bit, and then you can draw the bitting a little tighter every time you put it on, and he will still raise his head to loosen it. By this means you will gradually get his head and neck in the position you want him to carry it, and give him a nice and graceful carriage without hurting him, making him mad, or causing his mouth to get sore. Horses that have their heads drawn up tightly, should not have the bitting on more than fiteen minutes at a time.

How to Make a Bitting Bridle for an Unruly Horse

Take the Eureka Bridle, already described, and fix a loop upon the other end, just like that already used to put around the jaw, but big enough to go over the head and fit over the neck, rather tight, where the collar is worn. Now bring your cord forward, put through the mouth from the off side, and bring back on the near side and put through the loop around the neck. Pull upon this cord, and the head will be drawn back to the breast. You are now prepared to bit. Simply pull upon the cord a little, which will draw the head back slightly; after holding for a short time, render loose; then draw up a little tighter, and so repeat for four or five times. Then stop bitting and repeat at some future time till you have the horse entirely under your control.

How to Saddle a Colt

Any one man who has this theory, can put a saddle on the wildest horse that ever grew, without any help, and without scaring him. The first thing will be to tie each stirrup strap into a loose knot, to make them short and prevent the stirrups from flying about and hitting him. Then double up the skirts and take the saddle in your right arm, so as not to frighten him with it when you approach. When you get to him, rub him gently a few times with your hand, then raise the saddle very slowly, until he can see it, and smell, and feel it with his nose. Then let the skirts loose, and rub it very gently against his neck the way the hair lays, letting him hear the rattle of the skirts as he feels them against him, each time a little further backward, and finally slip it over on his back. Shake it a little with your hand, and in less than five minutes you can rattle it about over his back as you please, and pull it off and throw it on again, without his paying much attention to it.

As soon as you have accustomed him to the saddle, fasten the girth. Be careful how you do this. It often frightens the colt when he feels the girth binding him, and making the saddle fit tight on his back. You should bring up the girth

very gently, and not draw it too tight at first, just enough to hold the saddle on. Move him a little, and then girth it as tight as you choose, and he will not mind it.

You should see that the pad of your saddle is all right before you put it on, and that there is nothing to make it hurt him, or feel unpleasant to his back. It should not have any loose straps on the back part of it, to flap about and scare him. After you have saddled him in this way, take a switch in your right hand to tap him up with, and walk about in the stable a few times with your right arm over your saddle, taking hold of the reins on each side of his neck with your right and left hands, thus marching him about in the stable until you teach him the use of the bridle and can turn him about in any direction, and spot him by a gentle pull of the rein. Always caress him, and loose the reins a little every time you stop him.

You should always be alone, and have your colt in some light stable or shed the first time you ride him; the loft should be high so that you can sit on his back without endangering your head. You can teach him more in two hours' time in a stable of this kind, than you could in two weeks in the common way of breaking colts, out in an open place. If you follow my course of treatment, you need not run any risk, or have any trouble in riding the worst kind of horse. You take him a step at a time, until you get up a mutual confidence and trust between yourself and horse. First teach him to lead and stand hitched; next acquaint him with the saddle, and the use of the bit; and then all that remains is to get on him without scaring him, and you can ride him as well as any horse.

How to Mount a Colt

First gentle him well on both sides, about the saddle and all over, until he will stand still without holding, and is not afraid to see you anywhere about him. As soon as you have him well gentled, get a small block about one foot or eighteen inches in height, and set it down by the side of him, about where you want to stand and mount him; step up on this, raising yourself very gently. Horses notice every change of position very closely, and if you were to step up suddenly on the block, it would be very apt to scare him; but by raising yourself gradualy on it, he will see you without being frightened, in a position very near the same as when you are on his back. As soon as he will bear this without alarm, untie the stirrup strap next to you, and put your left foot in the stirrup, and stand square over it, holding your knee against the horse, and your toe out, so as to touch him under the fore-shoulder with the toe of your boot. Place your right hand on the front of the

saddle, and on the opposite side of you, taking hold of a portion of the mane and reins (they hang loosely over his neck), with your left hand then gradually bear your weight on the stirrup and on your right hand, until the horse feels your whole weight on the stirrup; repeat this several times, each time raising yourself a little higher from the block, until he will allow you to raise your leg over his croup, and place yourself in the saddle. Another, and in some cases a better way of mounting, is to press the palm of your right hand on the off-side of the saddle, and as you rise lean your weight on it. By this means you can mount with the girths loose, or without any girths at all.

There are three great advantages in having a block to mount from. First, a sudden change of position is very apt to frighten a young horse that has never been handled; he will allow you to walk to him, and stand by his side without scaring at you, because you have gentled him to that position; but if you get down on your hands and knees and crawl towards him, he will be very much frightened; and upon the same principle, he would frighten at your new position if you had the power to hold yourself over his back without touching him. Then, the first great advantage of the block is to gradually gentle him to that new position in which he will see you when you ride him. Secondly, by the process of holding your weight in the stirrups, and on your hand, you can gradually accustom him to your weight, so as not to frighten him by having him to feel it all at once. And, in the third place, the block elevates you so, that you will not have to make a spring in order to get on the horse's back, but from it you can gradually raise yourself into the saddle. When you take these precautions, there is no horse so wild but that you can mount him without making him jump. I have tried it on the worst horses that can be found, and have never failed in any case. When mounting, your horse should always stand without being held. A horse is never well broke when he has to be held with a tight rein when mounting; and a colt is never so safe to mount as when you see that assurance of confidence and absence of fear, which cause him to stand wihtout holding.

How to Ride a Colt

When you want a colt to start, do not touch him on the side with your heel, or do anything to frighten and make him jump. At once speak to him kindly, and if he does not start, pull him a little to the left until he does so, then let him walk off slowly with the reins loose. Walk him around in the stable a few times until he gets used to the bit, you can turn him about in every direction and stop him as you please. It will be well to

get on and off a good many times until he gets perfectly used to it before you take him out of the stable. After you have trained him in this way, which should not take more than two or three hours, you can ride him anywhere you choose without ever having him jump or make an effort to throw you.

When you first take him out of the stable, be very gentle with him, as he will feel a little more at liberty to jump or run, and be easier frightened than he was while in the stable; but will nevertheless find him pretty well broke, and will be able to manage him without trouble or danger.

When you first mount a colt, take a little the shortest hold on the left rein, so that if anything frightens him, you can prevent him from jumping by pulling his head round to you. This operation of pulling a horse's head round against his side will prevent him from jumping ahead, rearing up, or running away. If he is stubborn and will not go, you can make him move by pulling his head around to one side, when whipping him would have no effect. Turning him around a few times will make him dizzy, and then by letting him have his head straight, and giving him a little touch with the whip, he will go along without any trouble.

Never use martingales on a colt when you first drive him every movement of the hand should go right to the bit in the direction in which it is applied to the reins, without a martingale to change the direction of the force applied. You can guide the colt much better without it, and teach him the use of the bit in much less time. Besides, martingales would prevent you from pulling his head round if he should try to jump.

After your colt has been ridden until he is gentle and well accustomed to the bit, you may find it an advantage, if he carries his head too high or his nose too far out, to put martingales on him.

You should be careful not to ride your colt so far at first as to heat, worry, or tire him. Get off as soon as you see he is a little fatigued; gentle him and let him rest; this will make him kind to you, and prevent him getting stubborn or mad.

Foot Strap, and How to Use It

Take a common strap or rope about the size of the Eureka Bridle. The Eureka bridle will do by untying one of the loops. Fasten the end untied carefully to the forward foot, below the fetlock. Pass the other end over the bellyband of the harness and carry it back on the left side to the sulky over the hold-back strap of the breechen, and hold as a third rein in your hand. You have in this strap or cord, connected with the foot

in this way, a means of control, with which you can almost as easily as if a plaything, control a horse while moving in the harness, and embodies one of the most valuable and effective means of controlling a horse in harness yet demonstrated. If the horse attempts to run away, simply pulling upon your strap throws him instantly upon three legs, and he has to stop. If he attempts to run back, the same remedy stops him. If he attempts to kick, you attract his attention forward instantly, and at the same time make it impossible for him to kick.

How to Prevent a Horse Running Away

Put on the foot strap, and when he attempts to run take up his foot, make him run, and tripping every time he will not stop instantly at the word "Whoa." Should he be of the extremely wilful character, he may run on three legs. If you mistrust so, attach another strap to the opposite foot. Then make him run, and if he will not run for the taking up the second, which will destroy his confidence at once, when one strap will answer just as well. Make your lesson thorough, so that the horse will stop every time you call "whoa."

Although we have given a powerful means of coercion and of impressing the horse of his inability to resist the will of man, still practical and thorough as are those means, they are but of little account if not used with prudence and judgment.

How to Make a Horse Lie Down

Everything we want to teach the horse must be commenced in such a way as to give him an idea of what we want him to do, and then be repeated till he learns it perfectly. To make a horse lie down, bend his left fore-leg and slip a loop over it, so that he cannot let it down. Then put a surcingle around his body, and fasten one end of a long strap around the other fore-leg, just above the hoof. Place the other end under the before-described surcingle, so as to keep the strap in the right direction; take a short hold of it with your right hand; stand on the left side of the horse; grasp the bit in your left hand pull steadily on the strap with your right; bear against his shoulder till you cause him to move. As soon as he lifts his weight, your pulling will raise the other foot, and he will have to come on his knees. Keep the strap tight in your hand, so that he cannot straighten his leg if he rises up. Hold him in this position, and turn his head towards you; bear against his side with your shoulder, not hard, but with a steady, equal pressure, and in about ten minutes he will lie down. As soon as he lies down, he will be completely conquered, and you can

handle him as you please. Take off the straps, and straighten out his legs; rub him lightly about the face and neck with your hand the way the hair lies; handle all his legs, and after he has lain ten or twenty miinutes, let him get up again. After resting him a short time, make him lie down as before. Repeat the operation three or four times, which will be sufficient for one lesson. Give him two lessons a day, and when you have given him four lessons, he will lie down by taking hold of one foot. As soon as he is well broken to lie down in this way, tap him on the opposite leg with a stick when you take hold of his foot, and in a few days he will lie down from the mere motion of the stick.

Kicking in Stall

To cure a horse of this habit put on the saddle part of a carriage harness, and buckle on tightly. Then take a short strap, with a ring attached, and buckle around the forward foot below the fetlock. To this short strap attach another strap, which bring up and pass through the turret; then return to the foot and run through the ring in the short strap. Then pass over the bellyband and tie to the hind leg, below the fetlock. With this attachment on each side, the moment the horse kicks he pulls his feet from under and trips himself upon his knees, which he will be very careful not to do but a few times.

How to Tame a Horse with Vicious Habits

Having given full instructions relative to system of dealing with young colts, I will now proceed to detail the plan of operations for taming and subduing wild or vicious horses. The principles of this method are the same as those in management of colts—kindness and gentleness—but the practice differs. When you desire to subdue a horse that is very wild, or has a vicious disposition, take up one fore-foot and bend his knee till his hoof is bottom upwards, and nearly touching his body; then slip a loop over his knee, and shove it up until it comes above the pastern-joint, to keep it up, being careful to draw the loop together between the hoof and pastern-joint with a second strap of some kind to prevent the loop from slipping down and coming off. This will leave the horse standing on three legs; you can now handle him as you wish, for it is utterly impossible for him to kick in this position. There is something in this operation of taking up one foot, that conquers a horse quicker and better than anything else you can do to him; and there is no process in the world equal to it to break a kicking horse, for by conquering one member you conquer, to a great extent, the whole horse.

You can do anything you wish with the horse in this condition, as when he becomes convinced of his incapacity to cope with man, he wlil abandon all antagonistic demonstrations, and become willing to obey, and be generally docile. Operate on your horse in this manner as often as the occasion requires, and you will soon find him as gentle as his nature will permit him to be. By these means the most vicious, uneasy, unruly, or fretful horse may be cured, though it depends upon the age and disposition of the animal how long it will take to make him amiable. When you first fasten up a horse's foot, he will sometimes get very mad, and strike with his knee, and try every possible way to get it down; but as he cannot do that he will soon give up.

Conquering a horse in this manner is better than anything else you could do, and leaves him without any possible danger of hurting himself or you either; for after you have tied up his foot you can sit down and look at him until he gives up. When you find he is conquered, go to him, let down his foot, rub his leg with your hand, caress him, and let him rest a few minutes; then put it up again. Repeat this a few times, always putting up the same foot, and he will soon learn to travel on three legs so that you can drive him some distance. As soon as he gets a little used to this way of traveling, put on your harness and hitch him to a sulky. If he is the worst kicking horse that ever raised a foot, you need not be fearful of his doing any damage while he has one foot up; for he cannot kick, neither can he run fast enough to do anly harm. And if he is the wildest horse that ever had harness on, and has run away every time he has been harnessed, you can now hitch him to a sulky and drive him as you please. If he wants to run, you can let him have the lines, and the whip too, with perfect safety; for he can go but a slow gait on three legs, and will soon be tired and ready to stop; only hold him enough to guide him in the right direction, and he will soon be tired and willing to stop at the word. Thus you will effectually cure him at once of any further notion of running off.

Kicking horses have always been the dread of everybody; you always hear men say, when they speak about a bad horse, "I don't care what he does, so he don't kick." This new mode is an effectual cure for that worst of all habits. There are plenty of ways by which you can hitch a kicking horse and force him to go, though he kicks all the time; but this does not have any good effect towards breaking him, for we know that horses kick because they are afraid of what is behind them, and when they kick against it and it hurts them they only kick harder; and this will hurt them still more and make them remember the scrape much longer, and make it still more difficult to per-

suade them to have any confidence in anything dragging behind them ever after. But by this new method you can harness them to a rattling sulky, plow, wagon, or anything else in its worst shape. They may be frightened at first, but cannot kick or do anything to hurt themselves, and will soon find that you do not intend to hurt them, and then they will not care anything more about it. You can then let down the leg and drive along gently without any further trouble. By this new process a bad kicking horse can be learned to go gentle in harness in a few hours' time.

How to Cure Bad Kickers

For extremely bad kickers or horses bad to shoe, the following method wlil be found effectual. Put on a common rope or strap halter, with a hitching rope or strap about twice as long as the animal's body Have round the body a common rope or surcingle. Then pass this rope or strap between the fore-legs over the surcingle, back around the hind feet, below the fetlocks and forward over the surcingle between the legs, and tie short into the halter beneath the jaws. Now make the horse kick and you will find that he reproves himself in the most severe manner, and in a short time will submit unconditionally. Care should be taken against chafing the foot by the action of the strap or rope around the fetlocks. If you can attach a little strap around each foot, with rings in them, through which run strap or rope from the head instead of around the feet, horses extremely bad to kick when handled about the feet, or to be shod, yield readily to this mode of treatment. Always after a horse has submitted he should be treated in a kind and gentle manner. For driving in harness, attach to a common halter-head-stall a strap about six feet long, over which put a two inch ring, then tie the end of this strap back into the halter. Now pass this double strap down between the fore-legs, so that the ring will extend just back of the belly band, then buckle round each hind foot below the fetlocks, short straps with rings attached, to these rings attach a rope which is passed through the ring upon the halter, just enough to enable the horse to stand naturally. In this condition it will be seen the horse has sufficient freedom to walk and trot but the moment he attempts to kick, he reproves himself by the attachment to the head.

How to Hitch a Horse to a Sulky

Lead the horse to and around the sulky; let him look at it, touch it with his nose, and stand by it until he does not care for it; then pull the shafts a little to the left, and stand your horse in front of the off wheel. Let some one stand on the

right side of the horse and hold him by the bit, while you stand on the left side facing the sulky. This will keep him straight. Run your left hand back and let it rest on his hip, and lay hold on the shafts with your right, bringing them up very gently to the left hand, which still remains stationary. Do not let anything but your arm touch his back, and as soon as you have the shafts square over him, let the person on the opposite side take hold of one of them, and lower them very gently to the shaft bearers. Be very slow and deliberate hitching; the longer time you take, the better as a general thing. When you have the shafts placed, shake them slightly, so that he will feel them against each side. As soon as he will bear them without scaring, fasten your braces, etc., and start him along very slowly. Let one man lead the horse to keep him gentle, while the other gradually works with the lines till he can get behind and drive him. After you have driven him in this way a short distance, you can get into the sulky, and all will go right. It is very important to have your horse go gently when you first hitch him. After you have walked him awhile, there is not half so much danger of scaring. Men do very wrong to jump up behind a horse to drive him as soon as they have him hitched. There are too many things for him to comprehend all at once. The shafts, the lines the harness, and the rattling of the sulky, all tend to scare him, and he must be made familiar with them by degrees. If your horse is very wild, I would advise you to put one foot up the first time you drive him.

To Train Horses for the Chaise

It will not require a very vivid imagination for those that use the chaise much, to know that there is a great difference in the motion of the chaise; and what makes the difference? It is the gait of the horses; and those who would purchase a good chaise horse, must look for a short gaited one. A long gaited horse gives an unpleasant motion to the chaise. Now all horses of good action will make a good chaise horse if you shorten their gait. To do this, you must use a net. This net is like a breast collar; it must be two feet or two and a half and must now be fastened to the collar and harness, and worn long, reaching to the knees; the cords in the fringe to this must be about four inches apart, and on each cord there must be four balls of one inch and a half in diameter.

There must be a similar net on the breaching, reaching round the flank and meeting the front one; this net must hang below the gambrils; then use a string of smaller balls on the fore feet, these to be one inch in diameter. They will effectually shorten the gait. You should be careful in the first exercise after the putting on of the net. Drive or lead the horse around

after the harness and net are on, before putting him to chaise. After a few days practice, you will have a fine chaise horse. Some of the best chaise horses have become so from having sore feet, which made them step short. If you will attend to the remarks on shoeing, and take care of the foot otherwise, your horses will never have contracted feet.

To Train a Horse to Stand When You Are Getting Into a Carriage

There are many horses that are very gentle after starting, but that will not stand to let more than one get in; they will then rear up and start very suddenly, and, if stopped, they become stubborn, and refuse to start when called on. People usually punish them with the whip, or by kicking them, sometimes in the belly, which is very dangerous, as they have thus been ruptured. Now, with such a horse as this, you should commence in this way—after he is hitched, caress him about the head, then take hold of the reins, and put your foot on the step, and shake the carriage; if he starts, pull gradually on the reins, and at the same time, speak low, 'Whoa my boy!' or something like it. Then approach his head, and give him a piece of apple, caress him on the head, between the eyes, and on the nose and neck; continue this kind of treatment a few minutes, and when you get in don't you allow him to start off in a hurry—walk him off. After a few repetitions of this exercise he will be perfectly submissive.

Halter Pulling

It is a very easy matter to break up this bad habit. Put on the Eureka Bridle, and train the horse about until he will come to you readily when you pull upon him a little sideways. Simply repeat this, gradually a little more on a line with his body at each repetition, until he will yield as readily at being pulled forward as sideways. Then tie a strap, or a piece of rope around the body where the harness saddle rests. Now lead the horse to his manger or to a post, run the halter strap through the ring or hole and pass back between the fore-legs over the strap or cord tied around the body, and tie to the hind leg below the fetlock. If your halter strap is not long enough, splice a piece to it. Your horse so fastened, step forward to his head and make him pull. Of course he will go back with a rush, but the moment he attempts going back, the halter strap pulls directly upon the hind leg, which not only disconcerts, but makes it impossible for him to pull. The most halter pullers will not pull two or three times when so hitched but success in this as well as all other cases depends much on the prudence and good judgment used in managing the case.

How to Manage Balky Horses

Horses know nothing about balking until they are forced into it by very bad management. When a horse balks in harness, it is generally from some mismanagement. excitement, confusion, or from not knowing how to pull, but seldom from any unwillingness to perform all that he understands. High-spirited free-going horses are the most subject to balking, and only so because drivers do not properly understand how to manage this kind. A free horse in a team may be so anxious to go, that when he hears the word he will start with a jump, which will not move the load, but give him so severe a jerk on the shoulders that he will fly back and stop the other horse. The teamster will continue his driving without any any cessation, and by the time he has the slow horse started again, he will find that the free horse has made another jump, and again flown back. And now he has them badly balked, and so confused, that neither of them knows what is the matter, or how to start the load. Next will come the slashing and cracking of the whip, and hallooing of the driver, till something is broken, or he is through with his course of treatment. But what a mistake the driver commits by whipping his horse for this act! Reason nad common sense should teach him that the horse was willing and anxious to go, but did not know how to start the load. And should he whip him for that? If so, he should whip again for not knowing how to talk. A man that wants to act with reason should not fly into a passion, but should always think before he strikes. It takes a steady pressure against the collar to move a load, and you cannot expect him to act with a steady, determined purpose while you are whipping him. There is hardly one balking horse in five hundred that will pull truly from whipping ;it is only adding fuel to fire, and will make him more liable to balk another time. You always see horses that have been balked a few times, turn their heads and look back as soon as they are a little frustrated. This is because they have been whipped, and are afraid of what is behind them. This is an invariable rule with balky horses, just as much as it is for them to look around at their sides when they have the bots; in either case they are deserving of the same sympathy, and the same kind of rational treatment.

When your horse balks, or is a little excited, or if he wants to start quickly, or looks around and don't want to go, there is something wrong, and he needs kind treatment immediately. Caress him kindly, and if he don't understand at once what you want him to do, he will not be so much excited as to jump and break things, and do everything wrong through fear. As long as you are calm, and can keep down excitement of the

horse, there are ten chances to have him understand you, where there would not be one under harsh treatment; and then the little flare up would not carry with it any unfavorable recollections, and he would soon forget all about it, and learn to pull true. Almost every wrong act the horse commits is from mismanagement, fear or excitement; one harsh word will so excite a nervous horse as to increase his pulse ten beats in a minute.

Almost any team, when first balked, will start kindly if you let them stand five or ten minutes, as though there was nothing wrong, and then speak to them with a steady voice, and turn them a little to the right or left so as to get them both in motion before they feel the pinch of the load. But if you want to start along a team that you are not driving yourself, that has been balked, fooled, and whipped for some time, go to them and hang the lines on their hames, or fasten them to the wagon, so that they will be perfectly loose; make the driver and spectators, if there are any, stand off some distance to one side, so as not to attract the attention of the horses; unloose their check reins, so that they can get their heads down if they choose; let them stand a few minutes in this condition, until you can see that they are a little composed. While they are standing you should be about their heads gentling them; it will make them a little more kind, and the spectators will think you are doing something that they do not understand, and will not learn the secret. When you have them ready to start, stand before them, and as you seldom have but one balky horse in a team, get as near in front of him as you can, and if he is too fast for the other horse, let his nose come against your breast; this will keep him steady, for he will go slow rather than run on you; turn them gently to the right, with the wagon; have it stand in a favorable position for starting out, letting them pull on the traces as far as the tongue will let them go; stop them with a kind word, gentle them a little, and turn them back to the left, by the same process. You will have them under your coutrol by this time, and as you turn them again to the right, steady them in the collar, and you can take them where you please.

There is a quicker process that will generally start a balky horse, but not so sure. Stand him a little ahead, so that his shoulder will be against the collar, and then take up one of his fore-feet in your hand, and let the driver start them, and he will go right along. If you want to break a horse from balking that has long been in that habit, you ought to set a day apart for that purpose. Put him by the side of some steady horse, have check lines on them; tie up all the traces and straps, so that there will be nothing to excite them; do not rein them up,

but let them have their heads loose. Walk them about to gether as slowly and lazily as possible; stop often and go up to the balky horse and gentle him, but keep him just as quiet as you can. He will soon learn to start off at the word, and stop whenever you tell him.

As soon as he performs right, hitch him to an empty wagon. It would be well to shorten the stay chain behind the steady horse, so that if it is necessary he can take the weight of the wagon the first time you start them. Do not drive but a few rods at first; watch your balky horse closely, and if you see that he is getting excited, stop him before he stops of his own accord, caress him a little, and start again. As soon as they go well, drive them over a small hill a few times, and then over a large one, occasionally adding a little load. This process will make any horse true to pull.

Advice to Those Who Hire Horses

It will be for your interest, reader, to use all precautions to prevent a horse from becoming sick while in your hands. This can be done by adhereing to certain rules which I will now note down.

When you leave the stable drive slow for a few miles unless you know how much the horse has been fed. If he has just finished his meal it is very necessary that he should be driven at a moderate pace on the start. If he had eaten a few hours before the precaution will be necessary. When you water your horse never give over two quarts, and that once in three hours. Look at his mouth—if it is moist with saliva, he does not need watering. If the mouth is dry and if tepid water is at hand, wash out the nostrils and mouth with it, if no tepid water is at hand use cold, but warm water would cause the saliva to exude, relieving the horse by keeping the mouth moist afterwards.

If you are on a journey stop at 11 a. m. and let your horse stand without any food for a half or one whole hour, then give about one gallon of water, and let him stand ten minutes when he may be given three quarts of oats, or five ears of good bright corn, or three pints of shelled corn. Let him stand after eating, two or three hours, if you can; then you may put him on a brisk trot, without any danger of causing disease. I should rather have a horse driven seven miles an hour, treated in this way, than four, if started off directly after eating. By watering after feeding, and then driving off, gases are generated on the stomach, and give colic, or set the bots to work in the membrane of the stomach.

Again, if the horse is warm when you stop, be careful not to stand him in a current of air; he might take a disease in

ten minutes that would carry him off; if in very warm weather, he had better stand in the sun than in a draught of air. If in very cold weather, either stable him or clothe him when you stop, to keep the cold air from closing the pores of the skin. If you are compelled to stop in the wind, always face the wind, then the air blows the way the hair lays. If in the winter in a northern climate, never allow a snowball to remain in the foot, especially if he has been driven fast and is warm. The coffin muscle is relaxed by heat, and the close proximity of snow would cool off the foot so suddenly that the muscle would contract, and in a few days the hoof would shrink to the contraction and make him lame.

Always be cautious to keep the feet from cold water when the horse is warm, and any sudden contact of cold with hot blood, either in the body or legs, would be dangerous. These precautions should be taken either in riding or driving. If you drive through water when the horse is warm, give exercise enough to keep up the circulation, not to allow the blood to be chilled in the veins. If you adhere to these rules, you will not be likely to have a horse injured by your management.

On Choking as a Means of Subduing a Horse

Choking is another method of conquering a skittish, stubborn or refractory horse. It is resorted to in cases where the measures before described fail to produce the desired effect. The principles on which the plan of choking are based, are, that you must make a powerful appeal to the intelligence of the animal by physical means before you can subdue him. Now we must know that most animals, in fighting, seize each other by the throat, and that a dog thus held by his antagonist for a few minutes, on being released, is often so thoroughly cowed that no human artifice can again induce him to resume the unequal contest. It is, then, reasonable to suppose that choking will have a similar effect on the horse. When it can be done without injuring the animal, it is an easy mode of subduing him, for by its operation he becomes docile, and will thereafter receive any instruction which he can be made to undertake. Teaching the horse by this means to lie down at our bidding, tends to keep him permanently gentle towards man, for it is a perpetual reminder of his subdued condition.

It requires a deal of practice to tame a horse successfully by choking; also a nice judgment to know when he is choked sufficiently, as there is a bare possibility that he might get more than would be good for him. We advise persons not perfectly familiar with a horse, to resort rather to the strapping and

throwing-down process, unless the animal to be operated upon is so vicious and intractable that he cannot be cured by it.

To Make Horses Perfectly Safe For Family Use

For a family hrose, we should select one with a full, prominent eye, and a broad space between them, full forehead, ears straight and pointed; when in action the ear should be in motion, working back and forth, thus showing that he knows what is transpiring around him. He should have a long, thin neck, and a full trumpet nostril. A horse of these points is not apt to tire on the road, for they indicate good blood.

By giving the animal to understand that we are his friend and protector, he will feel that he is safe and have confidence in us. To assure him of this we must caress him on the head and neck, and talk softly to him; then if you have something he is very fond of—by feeding him with it we gain his sympathy and confidence, and he will remember us and our kindness to him. To us this is most reasonable. So long as he is treated kindly he will be kind and gentle himself to every one handling him. If he should frighten at any new object, by speaking gently, "So ho, my boy!" several times over, it assures him at once that he is safe. When your horses are harnessed to the carriage, and they wish to start before you are ready, do not jerk them, or speak cross, but go to their heads and caress and soothe them, and when you get in, draw the reins up carefully, and talk kindly to them, and allow them to walk off slowly; in a few days, with such treatment, your horses will be perfectly tractable and gentle. A full blooded horse is as sensitive as a well bred man, and you must not hilloa to him as you might to a hog. This you may not believe, but it is so. You must never use the whip, except when the horse knows what and how to do, and will not do it, or is lazy, and requires the lash to increase the speed. Adhere to the principle of kindness, and you will not fail to have a well trained family horse.

On the Rearing of Colts

If a fine colt is desired we must breed to a fine horse thorough blooded.

The colt should not be allowed to shrink for two years at least.

If the dam has not sufficient milk to keep him plump, he must be fed on cow's milk. Feed him through the winter on oatmeal dry and give him cow's milk to drink. If a colt is allowed to shrink during the first two years, he will never fill

out again as full and plump—his fine points will be undeveloped.

The colt should not be kept close to a stable, but allowed to run in and out at pleasure. He should not be allowed to stand on a plank floor at all. In the spring as soon as the grass is good he should be turned out to pasture.

On the Training of Horses for Trotting

The horse should be in good flesh. He should be driven moderately, with walking exercise every morning of about five miles. Before going into quarters, give him a brush, for one hundred yards, at the top of his speed, and one or two miles of moderate driving, sufficient to sweat him; then rub dry with rubbing rags, light rubbing is the best, just enough to dry the hair. Hard rubbing on the bones or cords causes soreness. Rub the flesh and muscles well to harden them. When driving to sweat, put on two thick woollen blankets, and drive at full speed two miles. Then turn down the hood, or neck cover, and scrape the head and neck well, and rub dry; then cover dry, and continue the same over the whole body, rubbing lightly and only enough to dry the hair. Then put on nice dry covering, and let him stand. Sweating often in this way will weaken; it should be done but seldom.

Their food and drink should be of the purest kind; sift their oats free from all dust, and dust their hay too. Give about a handful at a feed, morning and noon, and about twice that at night. From twelve to sixteen quarts of oats would be a great plenty per day—twelve would be plenty for the majority. Give one gallon of water in the morning. The same at noon. At night, give two gallons of water, and a peck of oats, with treble the quantity of hay. You should not exercise any horse on a full stomach, for then fast work hinders digestion. Grain lying undigested in the stomach, generates a gas by fermentation, which sets the bots at work, and gives colic. Indigestion is the cause of many diseases, and can be avoided by adhering to the directions for feeding, watering and driving, given in the first part of this book. If he is bound up, and you wish to physic, give him bran mashes.

On Horse Blinds, or Blinkers

All my experience with, and observation of horses, proves clearly to me that blinkers should never be used, and that the sight of the horse for many reasons, should not be interfered with in any way. Horses are only fearful of objects they do not understand, or are not familiar with, and the eye is one of

the principal mediums by which this understanding and this familiarity are brought about. The horse, on account of his very amiable nature, can be made in the course of time to bear almost anything, in any shape, but there is a quicker process of reaching his intelligence than that of wearing it into him through his skin and bones. However wild or nervous a horse may be, he can be taught in a very short time to understand and not to fear any object, however frightful in appearance. Horses can be broken in less time, and better without blinkers; but horses that have always worn them will notice the sudden change, and must be treated carefully the first drive. After that they will drive better without the blinkers than with. I have proved by my own experiments that a horse broken without blinkers can be driven past any omnibus, cab or carriage, on a parallel line as close as it is possible for him to go, without ever wavering or showing any disposition to dodge. I have not in the last eight or ten years. constantly handling horses, both wild and nervous, ever put blinkers on any of them and in no case have they ever shied at passing objects.

The horse's eye is the life and beauty of the animal, as well as the index of his emotions. It tells the driver in the most impressive manner, what the horse's feelings are. By it he can tell the first approach of fear in time to meet any difficulty; he can tell if he is happy or sad, hungry or weary. The horse, too, when permitted to see, uses his eyes with great judgment. He sees better than we do. He can measure distances with his eyes better than we can, and if allowed the free use of them, would often save himself, by the quickness of his sight, from collisions when the driver would fail to do so by a timely pull of the reins. It would also save many accidents to pedestrians in the streets, as no horse will run into any person or anything he can see. Blinkers are rapidly going out of use in the United States, and I have yet to find the man who having once left them off, could be persuaded to put them on again. They are an unnecessary and injurious incumbrance to the horse, and in years hence will be a thing to be read of as one of the follies happily reformed in the nineteenth century.

Rules to be Observed in the Purchase of a Horse

When about to purchase a horse, examine the eyes well. The best judges are sometimes deceived in the eyes therefore you cannot be too careful. Clearness of the Eyes is a sure indication of their goodness; but this is not all that should be attended to; the eyelids, eyebrows, and all the other parts must also be considered; for many horses whose eyes appear clear and brilliant, go blind at seven or eight years old. There-

fore be careful to observe whether the parts between the eyelids and the eyebrows are free from bunches, and whether the parts round the under eyelids be full, or swelled; for these are indications that the eyes will not last. When the eyes are remarkably flat, or sunk within their orbits, it is a bad sign; also when they look dead and lifeless. The iris, or circle that surrounds the sight of the eye, should be distinct, and of a pale, variegated, cinnamon color, for this is always a sure sign of a good eye, and it adds beauty to the appearance of the animal.

Next examine the teeth, as you would not wish to purchase an old horse, nor a very young one for service.

The Feet should next be regarded; for a horse with bad feet is like a house with a weak foundation, and will do little service. The feet should be smooth and tough, of a middle size, without wrinkles, and neither too hard and brittle, nor too soft, the Heels should be firm, and not spongy and rotten; the Frogs horny and dry; the soles somewhat hollow, like the inside of a dish or bowl. Such feet will never disappoint your expectations, and such only should be chosen.

Particular regard should be had to the Shoulders; they should not be too much loaded, for a horse with heavy shoulders can never move well; and on the other hand, one that has very thin shoulders, and a narrow chest, though he may move briskly so long as he is sound, yet he is generally weak, and easily lamed in the shoulders ;a medium should therefore be chosen.

The Body, or Carcass, should neither be too small nor too large. The Back should be straight, or have only a moderate sinking below the Withers; for when the back of a horse is low, or higher behind than before, it is both very ugly and a sign of weakness. The back should also be a proper length. The Ribs should be large, the Flanks smooth and full, and the Hind-parts, or uppermost Haunches not higher than the shoulders. When the horse trots before you, observe if his haunches cover his fore-knees. A horse with a short hind-quarter does not look well.

The next thing to be regarded in a horse is his Wind, which may be easily judged of by the motion of his flanks. A broken winded horse also pinches in his flanks, with a very slow motion, and drops them suddenly, which may be easily perceived. Many horses breathe thick that are not broken-winded indeed, any horse will in foggy weather, or if foul fed, without sufficient exercise; but if a horse has been in good-keeping, and had proper exercise, and yet has these symptoms, there is some defect either natural or accidental; such as a narrow chest, or some cold that has affected the lungs.

There are other particulars that should be observed in choosing a horse. If his Head be large and fleshy, and his Neck thick and gross, he will always go heavy on the hand, and therefore such should never be chosen. A horse that has his Heels very wide, seldom moves well, and one that has them too near will chafe and cut his legs by crossing them. Fleshy-legged horses are generally subject to the Grease, and other infirmities of that kind, and therefore should not be chosen.

The Temper of a horse should be particularly attended to. Avoid a fearful horse, which you may know at first sight by his starting, crouching, or creeping, if you approach him. A hot and fretful horse is also to be avoided, but the buyer should be careful to distinguish between a hot, fretful horse and one that is eager and craving. The former begins to fret the moment he is out of the stable, and continues in that humor till he has quite fatigued himself; and the latter only endeavors to be foremost in the field, and is truly valuable; he has those qualities that resemble prudence and courage; the other those of intemperate heat and rashness.

A horse that goes with his fore-feet low is very apt to stumble and there are some that go so near the ground that they stumble most on even roads; and the dealers, to remedy this, put heavy shoes on their feet, for the heavier a horse's shoes are the higher he will lift his feet. Care also should be taken that the horse does not cut one leg with the other. A horse that goes near the ground will cut the low side of the fetlock joint, but one that goes high cuts below the knee which is called the speedy cut. A horse that lifts his feet high generally trots fast, but is not the easiest for the rider. Some horses cut with the spurn of the foot, and some with the heel; but this you may soon perceive by their standing; for if a horse points the front of his foot inward, he cuts with the spurn, and if outward, with the heel.

These few instructions may be of use in purchasing horses; but I advise every one to get some experimental knowledge of them before he trusts to his own judgment, for the dealers have so many arts to hide the defects of their horses, that the best judges are often very much deceived.

How to Tell a Horse's Age By his Teeth

The only sure way of telling the age of a horse, is by the teeth, and these only for a certain time; after which time there is nothing to depend on, although you can guess very near, by the front teeth of his upper jaw, until he is about twelve or thirteen; this, with the face of the horse, and some other marks, enables one experienced in horses to guess pretty correctly.

There are six teeth above, and six below, in the fore part of the horse's mouth, from which we may judge of his age, they are called gatherers. When a colt is foaled, he has no teeth in the front of his mouth. In a few days two come in the upper jaw, and two below. Again, in a few days, four more appear; but the corner teeth do not come for several months—three or four. These twelve teeth remain unchanged in the front of the colt's mouth, until he is two or two and a half years old, when he begins to change them for permanent ones; although the manner in which he has been fed regulates, in a measure, the time of change.

Until he is in his eighth year, you tell his age by the front teeth in the lower jaw—so we will only speak of these. At first he sheds the two middle teeth of the six. These are succeeded by two permanent, or horse teeth, of a deeper color, and stronger—and grooved or fluted from top to bottom, with a black cavity in the centre. He is now about three. In the latter part of the fourth year, the teeth on each side of the teeth in the centre undergoes the same process, and he becomes possessed of four horse teeth in the middle, with their natural black marks in the centre, and one colt's tooth only on each side. He next sheds his corner teeth. When he has their successors his mouth is full. He has the black mark now in all the six teeth, and is five years old.

After a horse is seventeen or eighteen, the grinders wear down, and the nippers prevent the grinders from coming together, so that he cannot masticate his food as well as a six year old horse.

Weights to be Carried in Trotting

Weights to be carried by every trotting horse starting for a match, purse or stake:

Every horse shall carry one hundred and forty-six pounds; if in harness, the weight of the sulky and harness not to be considered. Pacing horses liable to the same rule.

Race Distances

A distance of mile heat—best three in five—shall be one hundred yards; for one mile heats eighty yards; and for every additional heat an additional eighty yards.

The time between heats shall be, for one mile twenty, and for every additional mile, five minutes.

To Put Horses in Good Condition

They need good care and clean feed. Do not use condition powders, or such medicines; they are not needed, and are

humbugs. If your horse is hide-bound, and out of condition, give him a good purge of linseed oil, or castor oil—one pint. Then give bran mashes morning and evening; he will soon regain his appetite, and will be all right. At any time when your horse loses his appetite, check his food, and give a mash. Give as little medicine as possible. By this treatment you will have healthy horses.

To Keep Horses Free From Disease

The stable must be clean and well ventilated. There is nothing more conductive to good health than pure air and clean food. The ceiling of the stable should be at least ten or twelve feet high, with a ventilating box at the head four inches square, running out at the roof. The loft should be perfectly tight, so that the breath of the horse cannot rise and mix with the hay, which may be injured both in taste and wholesomeness. It is a bad plan to put hay in a rack; the horse breathes on it and makes it less palatable and healthy. Feed from a box in front, and but little at a time; he will neither waste it or otherwise injure it. The ventilation in wall of the stable should be as high up as possible so as not to injure him by drafts of air, from which he should always be kept.

Filthy stables cause weak eyes, and a running at the nose, in many instances. The decomposition of vegetable matter, and the urine, give out stimulating and unhealthy vapors, and a strong smell of hartshorn. How can it but cause inflammation of the eyes or lung, or glanders and farcy? Be careful to have your stables so the urine will run off, but don't raise the planking much higher at the front than at the back, for this will cause a strain of the back sinews, and lameness, and thickening up of the same. It is an unnatural way for man or horse to stand.

The horse stalls should have holes bored in the planking, and they should always be kept open. In summer, the horse should always, if he stands on a dirt floor, stand on straw, or litter of some kind; it relieves the feet in stamping.

It is very injurious to keep horses in a dark stable; it is bad for the eyes, and many horses go blind from this cause. You should likewise avoid a glaring light, or straining white walls. Give a mellow light, with clean stabling, clean food, clean litter, and all will be well.

How to Shoe a Horse

If we examine the horse's foot while in his natural state it will be found almost round, and very elastic at the heel. The

frog, broad, plump, and of a soft yielding character; the commissares, open and well defined, and the sole concave, the outside of the crust, from the heels to the toe, increased from a slight level to an angle of about forty-five degrees. Consequently as the hoof grows, it becomes wider and larger in proportion to the amount of horn secreted, and the narrower and shorter in proportion to the amount of horn cut away from the ground surface. If a shoe were fitted nicely and accurately to the foot, after being dressed down well, it would be found too narrow and short for the same foot after the lapse of a few weeks. Now, if any unyielding shoe of iron is nailed firmly to this naturally enlarged and elastic hoof, it prevents its natural freedom of expansion almost wholly, and does not, as the foot grows down, allow it to become wider at the quarters, in proportion to the quantity of horn grown, as before being shod; and consequently the foot changes, from the continued effect of the restraint, from an almost round, healthy foot, to a contracted and unhealthy condition, as generally seen in horses shod for a few years. The principles which should govern in shoeing, are few and simple, and it is surprising that a matter involving such serious consequences, should be conducted with so little consideration. The object of the shoer should be, in trimming and preparing the hoof for the shoe, to keep the foot natural, and this involves:

FIRST.—The cutting away of any undue accumulation of horn affecting in the least its health and freedom.

SECOND.—To carry out in the form of the shoe, that of the foot as nearly as possible.

THIRD.—To fit and fasten the shoe to the foot so as to interfere least with its heatlh and elasticity.

The object in preparing the foot for the shoe should be to remove any undue accumulation of horn, designed to prevent its natural bearing, and the free, healthy action of its parts, and requires the cutting away of about the proportion contact with the ground would have worn off or so much as had grown since being shod last. If the shoes had been on a month, then the proportion of horn secreted in the time is to be removed. If on two months, then the proportion of two months growth. No definite rule can be given, the judgment must be governed by the circumstances of the case. The stronger and more rapid the growth of the foot, the more must be cut away; and the weaker and less horn produced, the less, to the extreme of simply leveling the crust a little the better to conform to the shoe. There is generally a far more rapid growth of horn at the toe, than at either the heels or the quarters; more, therefore, will require to be taken off the toe than off the other parts.

Therefore shorten the toe and lower the heels until you succeed in bringing down the bearing surface of the hoof, upon the shoe, to almost a level with the live horn of the sole. Be careful to make the heel level.

Having lowered the crust to the necessary extent with the buttress or knife, smooth it down level with the rasp. The sole and frog detach the old horny exfoliation as it becomes superabundant. The sole, therefore, would not need paring were it not for the restraining effect of the shoe upon the general functions of the foot, which is liable to prevent such detachment of the horn.

When this is the case, the sole should be properly dressed out with an English shave, the end of which is shaped like an iron used at sawmills to mark and measure boards. The buttress is too large and square edged to dress out so concave a surface properly, and unless great care is exercised it will not only penetrate through the sole in some places, but leave others entirely neglected. While a good workman may work well with almost any kind of tool, such have also the facility of adapting tools to the work. A horse's foot is not to be hacked and cut as if only a block of lifeless wood, and if even a lifeless machine, what care would be found necessary to preserve its harmony of action complete. The buttress does not seem to be at all adapted to dressing out the sole, and should not be used for that purpose. While we are obliged to find fault with the carelessness of blacksmiths in this respect, it is with the spirit of kindness, sensible that we are ourselves only dull pupils in the work of reform, and perhaps deserving severe criticism.

We would be particular also in impressing the necessity of not confounding the bars with the substance of the sole, and cutitng them down to the common level with the sole. Any man of common sense can see, that the bearing of the bars should be equal to the outside of the crest upon the shoe, and that they offer a decided resistance to the contraction of the heels. The cutting away of the bars, to give the heels an open appearance, is inexcusable, and should never be done.

In a natural, healthy condition, the frog has a line of bearing with the hoof, and by its elastic nature, acts as a safeguard to the delicate machinery of the foot immediately over it, and helps to preserve the foot in its natural state, by keeping the heels spread. It seems to be wisely intended to give life and health to the feet. Permitting the heels to grow down, with the addition of high heeled shoes, raises the frog from its natural position, and causes it to shrink and harden, and bears in

consequence an important influence in setting up a diseased action that usually results in contraction of the foot. If the heels are square and high and the hoof presents rather a long, narrow appearance, and is hollow on the bottom, there is a state of contraction going on and you must not hesitate to dress down thoroughly. Do not hesitate because the foot will appear small; cut away until you are well down to a level with live horn of the sole, and if the foot is weak, use the same prudence in not cutting it away too much. The shoer must always bear in mind that the sole must not rest upon the shoe. The sole, when not clogged with old horn, acts as a spring to the weight of the horse, and if it rests upon the shoe, an inflammation may be caused by the pressure of the coffin bone upon the sensitive luminæ, which is liable in consequence to be so bruised as to cause soreness and inflammation. The effect of such bruises are most common at the angle of the inner heel, where the descending heel of the coffin bone, forcibly pressing the soft, sensitive sole, upon the horny sole, is apt to rupture one or more of the small blood vessels of the delicate fleshy substance connecting the crust to the coffin bone of the part, causing red spots called corns. Let the foot be so dressed down, and the shoe so approximated, that the bearing will come evenly upon the crust all the way round, without the sole touching the shoe. This requires the crust to be dressed level, and although well down to the live horn of the sole, it should always be left a little higher. The corners between the bars and crust should be well pared out, so that there is no danger of the sole resting upon the shoe.

The Shoe

The principal object should be to have the shoe so formed as to size, weight, fitting and fastening, as to combine the most advantages of protection, and preserves the natural tread of the foot the best; in weight it should be proportioned to the work or employment of the horse. If the horse walks principally upon the road, his shoes should be rather heavy. The ground surface of the shoe should correspond with the ground surface of the foot in its natural state, or in other words it must have a concave surface corresponding with the concave surface of the foot. The nail holes should be punched coarse, and in the centre of the web. If the hind shoe, four on the side and well forward; if the forward shoe, four on the outside, and two or three well forward in the inside toe, as found necessary to retain the shoe. The manner of fastening the shoe in what really affects the foot; and which require the most especial attention in shoeing.

Interfering Shoes

First find what part of the foot hits the opposite ankle which you can do by wrapping the ankle with a rag nicely, which color with some kind of coloring matter, over where the opposite foot hits, you can then discover by driving where the color adheres and what portion of the crust hits the ankle. Remove this portion and have the shoes well under the foot, but carefully fitted, so as to support the foot safely by the bearing of the bar and heel. The hoof should be pared lower on the outside, to turn the ankle, that the other hoof may pass clear. Yet if the inside sole is not dressed, the rim soon breaks, and the inside is found to be actually lower than the outside. Shoes to prevent interfering, should be light and of narrow web, on the inside, with three nail holes near the toe. They should be straight at the point where they come in contact with the opposite leg. By adhering strictly to this principle of paring the foot, and fitting and fastening of the shoe, you will prevent a recurrence of the difficulty.

Shoes, to prevent over-reaching, should be long, and for the forward feet, heavy, especially at the heels; and for the hind feet, light, with heavy toes. The hoof should be well pared at the toe.

The Foot and Its Diseases

The crust, or wall, is that part which is seen when the foot is placed upon the ground and reaches from the hair to the ground. It is deepest in front, where it is called the toe; shallower at the sides, which are called quarters, and of least depth behind where it is termed the heel, it is placed flat upon the ground, but ascends obliquely backward, and possesses different degrees of obliquity in different feet. In a sound hoof, the proper degree of standing is calculated at forty-five degrees, or the fourth part of a semi-circle. This crust is thicker in front, being about half an inch, and at the quarters and heel is very much thinner. It is also thinner at the inner than the outer quarter, where the most weight is thrown upon. It is under the inner splint bone, on which so much weight rests, and being thinner, it is able to expand more—its elasticity is called more into play, and concussion and injury are avoided.

On account of its thinness and the additional weight which it bears, the inner heel wears away quicker than the outer—a circumstance which should never be forgotten by the smith. His object is to give a plain and level bearing to the whole of the crust.

Thus it will be unnecessary to remove but very little, if any

from the inner heel, as it has worn away faster than the outside, from the greater weight it bears, which would cause corns and quarter cracks, and even slints, the concussions being so much greater. This may all be avoided by paying a little attention when shoeing.

The Frog

In the place between the bars, and exactly filling it, is the frog. It is a triangular piece of horn projecting from the sole, almost on a level with the crust, and covering and defending a soft and spongy substance, and called the "sensible frog." It is wide at the heels, and above the shell of the foot, and runs to a point like a wedge. This is to keep the heel apart, and prevent him from slipping. It will adhere to the ice like rubber. There is a cleft, commencing at the back and running nearly two thirds the length of the frog, which is firmly united to the sole, but of a nature entirely different from it, being a soft, spongy substance, and very elastic. It never can be bruised until it has been cut, when it becomes a hard, horny substance and by treading on anything solid in going fast, it springs or presses on the sensitive part of the foot, and causes corns. Now, this frog should never be cut or pared in the least; let it look ever so ragged it is then healthy. It sheds every three months; but if the knife is used, it is more or less injured.

The Sole

This is the inner surface of the foot, and is both concave and elastic, and extends from the crust to the bars and frog. It is not as thick as the crust. Notwithstanding its situation, there is not as much weight thrown on it as there is on the crust; because it was intended to expand, in order to prevent concussion when the weight was thrown upon it. It is thicker at the toe, and where it connects with the crust. The principal weight is thrown upon the toe, by the coffin bone wedging in. It is not brittle, in health, and it is somewhat hollow, which gives spring to it and lessens the shock of striking the ground when in rapid motion; for if the sole was flat, there would be no spring to it, and it would be bruised by sudden contact with the ground. Thus you see that by cutting, the spring of the sole is injured and the sole itself becomes dry and hard, and brittle. But if never touched, it retains the moisture, keeps the foot from shrinking, and keeps it healthy.

The Coffin Bone

Beneath the lower pastern, and entirely enclosed in the hoof, is the proper bone of the foot—the coffin bone. It fills about

one half of the fore part of the hoof, to which it is fitted. It is light and spongy, and filled with numerous holes, through which pass the blood-vessels of the foot. These are necessarily numerous, considering the important and various secretions there going on; and the circulation could not be kept up if these vessels did not run through the substance of the bone. The holes about the coffin bone carry the blood to the little leaves with which it is covered; those near the lower part go to the sole. As this bone is enclosed in the horny box of the crust, no inconvenience can arise from an outward pressure; for the bone allows free passage to the blood, and protects it from every obstruction.

The fore part of the coffin bone, besides being thus perforated, is curiously roughened, for the attachment of numerous little leaves. On its upper surface is a concavity for the head of the lower pastern. In front is a striking prominence, into which is inserted the extensor tendon of the foot. At the back it is sloped for articulation with the navicular bone; and more underneath is a depression for the reception of the flexor tendon, continued down the leg, passing over the navicular bone, and then inserted into this bone. On either side are projections, called the heels of the coffin bone, and the bottom is hollowed to match the internal part of the sole. The most peculiar part of the coffin bone is the production of numerous little leaves around its front and sides. They are prolongations of the thick and elastic membrane covering the coffin bone, and consist of cartilagenous fleshy plates corresponding with and received between the horny leaves that line the inside of the crust. The horny leaves are secreted from or produced by the fleshy ligaments, and, being five hundred in number, their union with each other is so strong that they are inseparable.

When the animal is at rest, the whole weight is supported by these leaves, and not by the sole. It is the contraction of the coffin muscle that creates so much pain when the horse is foundered. The foot is then feverish, the blood vessels are filled with hot blood, and the foot is very sensitive to the touch of the hammer or any jar upon the crust. The elasticity of the sole prevents the foot from being bruised when in violent action.

Between the coffin bone and horny sole is the sensible sole, which is of a ligamentous or tendonous nature, well supplied with blood vessels and with nervous fibres, so that it is very sensitive. A small stone under the shoe will cause great inflammation, and corns are caused by the same. The smith needs to use great care in setting the shoe.

Contracted Feet

Sometimes only one foot becomes contracted; this may be caused in a cold climate by leaving a snowball in the bottom of the foot after the horse has been exercised until he is very warm. The coffin muscle is then relaxed by heat, and the snow ball cools it so sudden that it contracts. In a few days the hoof shrinks to the muscle thus contracted, leaving a ridge in the hoof.

In a warm climate, it may be caused by letting a horse stand even a short time, in cool water, after exercising and heating the blood. If you wish to bathe your horse's legs, do it with warm water, always; then you avoid all danger, and leave the limbs soft and pliable.

Also, cutting away too much of the sole of the foot, deprives it of the very substance which holds the moisture and keeps the foot healthy. Cutting the frog makes it hard and horny, and when struck hard upon a stone it is pressed to the quick, causing fever. Both practices will cause contraction.

CURE.—When first discovered, bathe the legs from the knee down, in hot water; do this twice a day for two weeks, every night stuffing the feet with clay. His shoes should merely rest on the rim of the foot. Never use a shoe with a swelled heel. When caused by cutting, stuff the feet with clay and use the concave shoes. Never use ointments or grease of any description upon the outside of the hoof, as they close the pores and create fever, without removing the cause of the disease.

Thrush

This is a very disagreeable discharge of offensive matter from the cleft of the frog, by which pus is secreted togther with, or instead of horn. If the frog is sound, the cleft sinks but a little way into it; but by contraction or other causes, the cleft will penetrate to the sensible sole within. Through this fissure the discharge proceeds. It may be caused by bruises or filth. The sinking in at the quarters will cause the horn to press upon the frog, or cutting the frog will cause it to become hard and horny. It can readily be distinguished from any other disease by the offensive smell; run a stick or blade in the fissure, and the discharge will assure you.

CURE.—First poultice with linseed meal, put on hot, and let it remain twelve hours; then use a paste made of two ounces of blue vitriol, one ounce white vitriol, powdered as finely as possible, mix well with one pound of tar and two pounds of lard. Apply this in the cleft. It may be put on tow and pushed in. Let it remain twelve hours; and then cleanse out with soft wat-

er and soap. When dry, make the second application; also renew the poultices at night, until all inflammation disappears.

If you wish to dry it up quick (which I do not approve), you can use the spirits of salt, ten or fifteen drops at a time. (2.) Cleanse the foot out well, then crowd in fine salt and wash with beef brine. But in all cases of thrush, first use poultices, to relieve the inflammation. A carrot poultice is good, if linseed is not convenient. After this, stuff the foot with clay, in dry weather; this will keep it cool and moist, and it will also make it less liable to be bruised. The horse should take physic during the time, to cleanse the blood. Use Barbadoes aloes, pulverized, and mixed with linseed oil sufficient to make into balls. Dose one ounce.

Grease

In many cases swelled leg, although distinct from grease, degenerate into it. This disease is inflammation of the skin of the heel, and very seldom comes on the fore legs. The skin of the heel has a peculiar greasy feeling, and when inflamed, the secretion of this greasy matter is stopped. The heels become red, dry and scurvy, and being so much in motion, they very soon crack, and sometimes ulceration and fungus will extend over the whole heel. The first appearance of grease is usually a dry scurvy state of the skin of the heel. They should be washed with soap and water, and relieved of all the hard substance that they can by soaking; then wipe dry, and sprinkle pulverized verdigris; this will dry up. But when the heels are badly cracked, and ulceration has commenced, it will be necessary to poultice them with linseed oil, or, if not at hand, carrots boiled soft and mashed fine; this is a good poultice for any inflamed part.

When inflammation and pain have gone, and there is a healthy discharge of matter, dress with an ointment of one ounce of rosin, two ounces of rosin, two ounces of honey in the comb, two ounces of lard, and one ounce of caliman powder; this cools and heals very fast. If the fungus is not entirely gone, wash with two drachms of blue vitriol in a pint of water. It is well to give a mild diuretic every third day—one tablespoonful of pulverized rosin in a ball of bran mash. Mash the horse while treating for this. Sassfras tea is good for him. If the legs swell after they are healed, bandage every night, and give moderate walking exercise. Give a slight purge of linseed oil or Barbadoes aloes.

Another Cure or Remedy is:—Two ounces Flour Sulphur, one-half ounce Verdigris. Mix and apply after washing.

Cure for the Grease from Internal Causes:—If the horse be full of flesh, the cure must be begun by bleeding, rowels, and repeated purging; after which two ounces of the following balls should be given every other day for some time, and they will work by urine the day following: 4 oz. of Yellow Resin, 2 oz. of Salt Prunel, 1 oz. of Oil of Juniper, 2 oz. of Salt of Tartar, 8 oz. of Castile Soap, 1 oz. of Camphor. Put these into a mortar with about two ounces of honey, or as much as will make them into balls, and they will carry off the offending humors, and free the blood from its noxious qualities. But at the same time that these internal remedies are taken, outward ones should not be omitted.

Cure for Grape Legs

These may be cured on their first appearance, when they are in the bud, by laying on caustic, or corrosive sublimate. When the swelling is abated, make the following into a salve to dress the sores with: 1 oz. of Blue Stone Vitriol, in powder 2 oz. of White Lead, in powder, 4 oz. of Honey. Mix these well together, and lay them on the sores with tow, to heal them; but, should they continue foul, and not frame to heal, mix four ounces of green salve and four ounces of Ægyptiacum ointment well together, and lay it on in the above manner. The mixtures will both heal and dry up the sores.

Founders, How Caused, Etc.

The Chest Founder is produced by violent exercise on a full stomach, and drinking large quantities of cold branch water; by the use of mouldy bran, corn, or oats, or by eating large quantities of green food, such as oats, wheat, peas, etc., while performing hard labor. The seat of the disease is in the lungs; the heart and liver are also considerably enlarged, inasmuch that there is not room, for them to perform their office with ease. The liver, lungs, diaphragm, and surrounding parts, are all covered with large brown spots, and are much inflamed.

There are many that hold that a horse can be foundered with grain. This is not so. The argument given is that they have driven horses or have known of cases where the horse was driven under a shed and fed without watering. This may be so; but that is no argument; for a horse may be driven and stand where there is a cold blast of wind that would chill a horse as bad as water. This would create founder as well as water; anything cold would create contraction; where, on the contrary, grain would create heat, instead of cold, and heat would relax; so that argument is worth naught. I will not pretend to say but that grain would injure a horse when hot. You might give corn meal and it would bake in the maw, and

there would be no passage; this would kill, but not founder. You are well aware that to heat a tire, then place it over the felly, it is perfectly loose, but when you put on cold water, it contracts to the felly and strengthens the wheel. So you will see at once that it is cold that causes founder. Cold contracts and heat relaxes, and grain would create heat.

CURE.—When the horse is foundered take one and a half or two gallons of blood from the neck vein; then give, as a physic six drachms of Barbadoes aloes, dissolved or in balls. Cover the horse over; then commence bathing with as hot water as you can use. Keep this up for an hour at least. Then stretch an old pantaloon leg over each of his fore legs, bind it around the hoof, then fill in with hot boiled oats; give as a drink sassafras tea, made from the root, and give bran mashes, with a table-spoonful of pulverized rosin. He should have a mash once a day for three or four days. This will cure him.

But in case of founders of long standing, or even if the hoof has shrunk to the contraction of the muscle, it will be necessary to treat it somewhat differently. The bleeding should be omitted, the legs bathed twice a day, and the feet should be poulticed with flaxseed meal three times a week, at night, or in day time if he is not at work. If he could run out to a marshy pasture, it would not be necessary to poultice. But he must have something to act on the blood. Take of digitalis four drachms, emetic tartar four drachms, nitre six drachms; divide this into two doses, and give one in three days. Between the days that this is given give bran mashes mixed with sassafras tea. This physic may be given once in every three weeks, with the feet always to be kept moist. It will take three months to effect a cure. When of long standing, the muscles of the shoulder sometimes contract, as in sweeney. In this case a seaton of from nine to fifteen inches must be used, according to the contraction.

The Navicular Bone

This is placed at the head of the coffin bone, and at the foot of the lower pastern, and is shaped like a wedge. Its office is to protect the coffin-joint at the back part. The frog getting dry and feverish, would allow the ligaments to be bruised, and cause lameness—another reason why the foot needs great care.

Quarter Crack

For this, pare with a sharp knife from the hair down, taking away the whole back part of the hoof down to the quick; then pare the other down thin; then set your shoes only so far

as the hoof runs. By this means the shoe cannot spring down upon the heel. The hoof will then grow down firm and sound.

Heaves—Reasons Why It Is Not in the Lungs

First.—If the disease was in the lungs, it would create inflammation, and have the same effect as inflammation of the lungs by cold. The horse would be weak and drooping without appetite, and, really, could not be driven two miles as any person would drive a horse. But a heavy horse can be driven from eight to twelve miles within an hour. This is positive proof that it is not in the lungs.

Second.—Take a heavy horse and turn him out to pasture forty-eight hours, and he will breathe clear and easy, showing no signs of the heaves. The grass has not reached the lungs still it has stopped the hard breathing; but if you will give the horse cold water to drink, he will cough. Has the water touched the lungs? No; but it has touched the disease. This is another reason why it is not in the lungs.

I will tell you where the disease is, and what it is caused by. 1st. A dainty horse is not liable to heaves, but a hearty eater is liable to this disease—not from the amount of food that he eats, but from the hoggish way of eating. There are two pipes leading to the stomach and lungs; where they meet there is a throttle valve. A horse on eating coarse food, scratches his throttle; then, by a hard drive, and warming the horse, he takes cold in his wound, and becomes a running sore or canker. By turning the horse to grass, the juice cleanses and washes the wound; the grass being cool takes the inflammation from the disease; the swelling is gone, and the horse breathes free and easy as ever. This is positive proof that it is not in the lungs. Then, by feeding with coarse and dry hay, it irritates and creates inflammation and causes the horse to breathe hard again.

Cure.—Take Balsam of Fir and Balsam of Copavia, equal parts; add enough calcined magnesia to make into balls. Give a middle-sized ball, night and morning, for ten days or two weeks—a ball about the size of the yolk of an egg. This is a sure cure. I never made a failure in any case. You should be careful about feeding for two weeks after giving the medicine. Cut, feed, and wet the hay. A little brown sugar in his food for a few days will be good.

Lung Fever

This disease always makes its appearance by a chill, the horse will shake and tremble like a person with the ague.

Whilst the chill is on, take half a pint of fine salt, put in a bottle of water, shake well, and drench the horse. This will release him entirely from the chill, and create perspiration, and he will be quite sick for a few minutes; but it will drive the cold entirely out, and he will look bright, and feel entirely well in a few hours. But if you should not discover him while the chill is on, it will require a different treatment. If he has been free from the chill for five or six hours, the symptoms will be, eyes inflamed, nostrils distended, breath short and quick and he will stand with his head down; his pulse from fifty to one hundred. You will find it under the jaw, just below where they buckle the throat latch. By putting your ear back of the fore leg you will hear a quick, heavy beating of the lungs. He will have no disposition to move or eat, but will drink; he never lies down. These are sure signs of inflammation of the lungs.

The causes of inflammation of the lungs are many. It may be brought on by filthy stables, but is usually by sudden changes from heat to cold and vice versa. The membrane that lines the cells of the lungs is very sensitive; there is also an intimate connection between the lungs and the pores of the skin; by stopping the insensible perspiration, a cold and cough ensue. A horse is driven until a sensible perspiration is pouring from him, then he is left in a current of air which closes the pores of the skin, thus arresting the perspiration, and driving the inflammation which it causes to the lungs. The majority of cases are very sudden. At first, the pulse is not much quicker, but the artery is plainly to be felt under the finger, and of its usual size. The pulse no longer indicates the expansion of the vessel; in some cases it eludes a most delicate touch; the legs are cold and the nostrils expanded; the flanks begin to heave with a quick and hurried motion, a symptom of pain; the membrane of the nose is very red; he stands with his legs abroad; his countenance indicates suffering, and he looks mournfully towards his flanks—he is unwilling to move—scarcely ever lies down; if he does, it is only for a moment from actual fatigue.

The duration of this disease is very uncertain. It will in some cases destroy in from twelve to twenty hours, and sometimes they will last for weeks. In sudden attacks of this kind, the lungs are entirely destroyed, resembling one black mass of blood.

The disease invariably makes its appearance with a chill. He commences trembling and shaking as if half frozen. At this stage of disease, the object should be to get up a reaction. Dissolve half a pint of fine salt, in warm water; shake it well,

and give as a drench; then clothe him, and in fifteen minutes he will be wet with perspiration; bathe his legs in warm water.

But if the fever has commenced, it will require different treatment; if it has been on, say six hours, it will be necessary to bleed, and very severely so. Open as large an orifice in the vein as possible; the object is to get control of the blood. The heart is working very hard to force the blood through the lungs. Bleed until the pulse is much slower, or flutters; then bathe the leg with as hot water as he can bear; bathe frequently, to get up circulation in the extremities.

If the attack is a severe one, blister the brisket, and the sides, as high up as the elbows—a mustard blister, if it will do; if not, with the flyblister—four oz. lard, one oz. rosin, and one oz. flies. It will not do to purge; there is so much sympathy between the bowels and the lungs, purging would transfer the inflammation to the bowels. In such a case, you must use clysters. Take eight oz. Epsom salts, dissolve in warm gruel, and inject; this will start the bowels, which are somewhat relaxed. You must now use cooling or sedative medicines. Take of digitalis one drachm, one and a half of emetic tartar, and three of nitre; give three times a day; this will have an immediate effect on the heart, lessening the number of pulsations and producing an intermittent state of the pulse; every six or seven beats, there will be a suspension while two or three could be counted. From this he will amend. Now reduce the dose to one half, and in a few days, it will not be necessary to give any medicinal treatment of any kind.

He should now have oatmeal gruel, or flaxseed meal gruel, they are strengthening. Mashes may be given, or green food, in small quantities. For inhaling, which is one of the most essential things to be done, use—digitalis one half ounce, nitre one ounce, and of balsams, fir and copaiva, two ounces each. Mix these together with one pint 95 spirits, and add one pint hot rain water. Cover the horse all over, letting the blankets reach the ground, so that no air can get under them. Then hold the mixture under his nose, and at the same time, touch a hot iron in the compound, and let him inhale the steam or fumes arising from the mixture. This will relieve the lungs from fever, drive the inflammation to the surface, and the cure is positive.

Adhesive Plasters

These plasters should be used over parts that have been strained, or otherwise weakened, and on deep-seated inflammation of the loins or back sinews. They are always to be ap-

plied warm, when they will adhere for a long time. The following is a good plaster:

Take of Burgundy or common pitch five ounces, of yellow wax one ounce, of tar six ounces. Melt together. When cooled to blood heat, add half a drachm of pulvreized cantharides. Stir well together.

When you apply it, warm or melt it over, and rub it well into the hair upon the sprain; then, while it is yet warm, (for it should be applied as hot as possible,) spread over it a lint of tow, well picked; pat down with the hand. This will make a strong covering, and will remain for months. It will gradually remove deep-seated inflammation, and, by its pressure, promotes the absorption of any callous or thickening beneath; at the same time, as a bandage, it gives strength to the parts.

Physicing

There is more injury done in the practice of this than in any other medical treatment of the horse. The old practice has been to physic and bleed every spring, and this is necessary where the horse is really sick. When you change him from the pasture to the warm stable and dry food, it is also good, the horse must be prepared for it. Give three or four mashes before the physic, and, in the majority of cases, they will be sufficient without it, especially if the bowels are slightly moved for really the less medicine given the better.

After the physic is given, the horse should have walking exercise for an hour or two; but, when it begins to operate, he should be kept still as possible, or the medicine would be likely to gripe, and perhaps irritate the intestinal canal, and cause inflammation. You can give him a small amount of hay and as much mash as he will eat, and as much water with the chill off as he chooses to drink; if he will not drink tepid water, give him about a quart of cold water every hour. When the purging ceases, give a mash twice a day, until you give more physic, which should be only once a week.

Barbadoes aloes is the best purgative, being always sure and safe. The dose, with the horse prepared by bran mashes, would vary from five to seven drachms, the latter sufficient for any horse. You can dissolve in warm water, and give as a drench, or make into a ball with linseed oil, and lay upon the roots of the tongue, letting go the tongue at the same time.

The next best purgative is the Croton nut; the fatina or meal of the nut is used. It should be made into a ball with linseed oil. Give from a scruple to half a drachm, according to the state of the subject. It acts more speedily than aloes, but causes more debility. Linseed oil is uncertain, but safe

in doses from a pound to a pound and a half. It leaves the horse in very good condition.

Poultices

Few horsemen are aware of the value of these simple preparations in abating inflammation and in allaying pain, cleansing wounds and causing them to heal. They are the best kinds of fomentations; they continue longer and keep the pores open. In all inflammations of the foot they are very beneficial and in cases of contraction. A poultice that retains the heat and moisture longest is the best. They will relieve swellings, take out the soreness from the pores, and draw out the unnautral substances. Linseed meal makes the best poultice; it will hasten any tumor that is necessary to open, and cleanse any old one, causing a healthy discharge, where it is offensive. But in this case—where the ulcer smells badly—add two ounces of pulverized charcoal or chloride of lime—half an ounce to one pound of meal. This is good to use in grease or cracked heel.

A poultice should never be put on tight. Carrots are very good, mashed fine, after boiling soft. The coal may be used in this also, where the parts smell offensively.

Wind Galls

These appear oftener on the hind than on the fore legs. It is a filling in of a mucous fluid in bags or sacks. It is caused by undue pressure from violent action, and by straining the tendon. These bags inflame, and fill larger and harder; they always form about the joint, as so many tendons concentrate there. Very few horses are perfectly free from them. At first they may cause lameness; but, in the majority of cases, they do not. It has been thought that these bags were filled with wind, and, in some cases, they have been opened, but this causes inflammation, and would lame the horse. The way to treat them is with a powerful blister directly on them, and then bandage; after the blister is formed, you must bathe it in some astringent. A decoction of oak bark is good. By this treatment the mucous is taken up by the absorbents, and you will have a cure. You must be very careful in driving for several days.

The Action of the Kidneys on the Blood

The blood contains a great quantity of watery fluid, unnecessary for the nutriment or repair of the frame. There also mingles with it matter which would become noxious if allowed

to accumulate too much. The kdineys are actually employed in separating these fluids, and in carrying off a substance, which, as an ingredient in the urine, is called the urea, and consists of what would be poisonous to the animal if remaining. The kidneys are two large glandular bodies placed under the loins, very much the shape of a kidney bean. The right kidney is forward under the liver; the left is back by the stomach and spleen. A large artery runs to each, and carries about one-sixth part of the whole blood that circulates through the frame. It divides into numberless little branches, most complicated, and coiled upon each other. The blood has waste parts, which, if allowed to remain, would be very injurious; and these must be separated from it.

The fluid separated varies materially in quantity and composition even during health, more so in the horse than in any other animal; and there is no organ so much under our control as the kidneys.

Diuretics are the most useful medicines, and, at the same time, the most injurious if improperly used.

In fevers, and in inflammation generally, for diuretic, use nitre and digitalis, on account of their sedative effects. They stimulate the kidnys to separate more than usual the quantity of water from the blood, and lessen the quantity of the latter. The object in this is to reduce the circulation, and thus ease the heart in its labor by calming the excitement. An overflow of blood gives quicker action to the heart, and causes the heating you will notice in lung fever. Diuretics lessen the blood, and give more perfect control over the heart.

In cases where the legs are swelled, the absorbents set to work and take up, and pour into the circulation, the fluid which has been effused into them.

The legs of some horses cannot be rendered fine, nor kept so, without the use of diuretics; nor can what is called grease heel—frequently connected with these swellings, yet cured without the use of them, always let the horse have plenty of tepid water—the more the better. You must always be careful not to keep him too warm; for if he sweats the medicine, instead of stimulating the kidneys, passes off in perspiration.

Antimony

There are several valuable preparations of this. The black sulphuret of antimony, a compound of sulphur and antimony is a good alterative. It is given with more sulphur, and with nitre, in varying doses, according to the disease, and the slow and rapid effect to be produced. The dose if you expect to continue it, should be at the most, four drachms. It should

never be bought in powder, whatever may be the trouble to pulverize it, for it is frequently adulterated with lead, magnesia forgedust, and arsenic.

Sweeny

The disease is on the side of the shoulder. The horse suffering from it will be quite lame, and will stand with one foot before the other; or if it is both shoulders, he will change from one to the other. The use of the shoulder is sluggish, and in breaking he will drag the foot, instead of raising it from the ground. It is caused by a strain or bruise, or by favoring the foot when diseased in some other part.

The membrane or muscle of the shoulder will shrink much. Where the horse has not been lame long enough to know how to ease himself by standing, you can easily tell what the trouble is by pressing with the thumb upon the muscle, which may be shrunk but a little. yet when you press the point affected, he will shrink from the touch.

CURE.—The only way this can be cured is by a seaton or rowell. The object of this is to create inflammation of the membrane. This seaton in these diseases should be from five to fifteen inches in length. The best article to use for it is tarred rigging rope; this should be turned every day for from two to three weeks. To insert this you must make an incision on the top through the skin and the membrane under the skin; the same at the bottom. Procure along, thin iron needle with a large eye, and thread with strong twine, to which fasten the rowell; run the needle through the two openings, drawing the rowell through, and then tie, leaving either inches slack to tie with. In some cases it will be necessary to wet the rowell with oil of terpentine or tincture of cantharides—either will do. Bathe the shoulder every day with as warm water as he can bear.

If it has the desired effect, it wlil discharge freely. This will relax and loosen up the membrane, and make the parts fill out smooth. Keep clean by soft water and soap, so that the discharge will not remove the hair. If you apply grease on the hair under the cut, it will prevent the hair from coming off.

Hide Bound

This is not so much a shrinking of the fatty substance between the skin and the muscles, as it is an alteration of the skin itself. It is a drying up of the oily moisture of the skin; it thus becomes dry and hard, the scales to the cuticle no longer yields to the skin, but separating in every direction,

turns the hair and gives it a staring rough look, which is an indication that the horse is out of condition. The vessels of the skin and bowels, as well as the stomach are deranged. It is a symptom of disease of the digestive organs.

At first, give a bran mash, and, if it can be had, sassafras tea. But in severe cases use levigated antimony two drachms nitre three drachms, sulphur five drachms—give every night in a mash. The antimony acts on the skin, the sulphur on the bowels, and the nitre on the urinary organs. Rub him and give him warm clothing. The skin will soon become loose and the horse be in condition again.

Cough

Use elecampaine roots, horehound and smartweed with six red pepper pods to two ounces of ginger root; boil till all the strength is extracted, then strain through flannel; add two quarts of molasses to every gallon of this extract, and boil all together for half an hour. Give one gill twice a day. Use an ox horn, or a crooked tin horn: Raise the head, and draw the tongue out on the left side; put the small end of the horn on the roots of the tongue, and empty the contents; then let go the tongue. Swab the throat every night with this mixture, using a whalebone with linen wrapped on the end. This is a sure cure for coughs.

Among all diseases to which this noble creature is subject, none has given more perplexity to farriers than a settled cough; indeed, it too often defies all the attempts of art, and the horse frequently becomes ashtmatical or broken winded.

For Restoring Hair to Galled Spots on Horses

Take one pound red clover blossoms and six quarts of water, simmer to a thick syrup—then add sufficient barbary tallow to make a paste. This form is the best ointment for this purpose extant.

For Spavin

Five ounces euphorbium; 2 ounces Spanish flies, (fine;) one ounce iodine, dissolve with alcohol; one half ounce red precipitate; one ounce corosive sublimate; one half ounce quicksilver; six ounces hog's lard; six ounces white turpentine, one quarter pound verdigris. Melt the lard and the turpentine together, then while hot add all together. Mix well; when cold, fit for use. Rub it in thoroughly on the spavin every day for three days, then wash clean with soap-suds, omit for three days, and then repeat for three days again, and so on until a perfect cure is produced. Should it blister, use it more cautiously.

Preparation for Blood Spavin

One half pound blood-root, one quart alcohol, two ounces of tannin and a quarter of a pound of alum.—Mix and let it stand, shaking it several times a day, till the strength is all in the alcohol, and bathe the spavin twice a day, rubbing it in with the hand.

Cure for Heaves

Take smart weed, steep it in boiling water till the strength is all out; give one quart every day mixed with bran or shorts for eight or ten days. Give green or cut up feed, wet with water during the operation, and it will cure.

Anti-Spasmodics

There are but few of these, and the horse is subject but to few spasmodic diseases. Opium is the best for general effect and that exerted particularly on lock jaw the oil of turpentine as a specific for spasms of the bowels.

Anti-Spasmodic Tincture for Man or Horse

Oil cajeput, one ounce; oil cloves. one ounce; oil peppermint, one ounce; oil anise, one ounce; alcohol one quart. Mix all together and bottle for use. Dose for a horse, one ounce every fifteen minutes in a little whisky and hot water, sweeten with molasses; continue until relieved. Dose for a man, one teaspoonful.

Worms in the Horse—How Treated

There are several kinds of worms in the intestines, and they are hurtful only when in large quantities. The long white worm resembles the common earth worm, and is from six to ten inches long. They are in the small intestines, and, when in large numbers, consume much of the nutritive part of the food, or the mucous of the bowels. Then the smaller and darker colored worm, called the needle worm, in the large intestines. In may cases they descend into the rectum in large quantiies; they irritate the fundament and annoy the horse. This is the trouble when he rubs his tail very much.

The horse shows this disease by falling off in flesh; his hide will be tight and the hair looks bad and sets forward; the eye has a dull look and at times will scringe and shrink down; he sometimes passes worms and he cannot be kept in condition.

CURE.—One ounce of aloes dissolved in warm water and given as an injection. This will succeed in most of cases. If

not give one pint of neatsfoot oil as a drench, and one pint as an injection. These will not fail. Give mashes after this for a few days.

It is well known that horses which have many worms can never thrive or carry much flesh. If the breeding of these vermin were prevented, it would add much to the strength of the horse; and it might be done by giving him a decoction of bitter herbs, such as wormwood in Spring. It may be boiled or steeped in hot water, and given two or three times a week. Or a decoction of wormwood buck-bean, gentian root, and camomile flowers, of each a large handful, boiled in a sufficient quantity of water, and given will answer the end.

Anodynes

Of these there is but one in horse practice. Opium is the only drug that will lull pain. It also acts as an astringent in doses of one, two or three drachms.

Farcy—Its Treatment

When farcy attacks only one part of the horse, and that where the blood-vessels are small, it may be easily cured; but when the plate vein is affected and turns corded, and especially the crural veins inside the thigh are in that condition, the cure is very difficult, and the creature is rarely fit for anything but the lowest work, after it.

Bathe the legs every night in hot water, into which put a shovel of hot wood ashes making a weak lay. When he regains his appetite be very careful in feeding. Give him mashes at least twice a day until he gets his strength; then give green food if possible.

In very severe cases of farcy, internal medicines will be necessary. Use of corrosive suglimate, ten grains—increased to a scruple with two drachms of gentian, and one of ginger; repeat morning and night, until the ulcers disappear.

Pleurisy—How to be Treated

This is an attack of the membrane covering the lungs, and the lining of the chest, called the "pleura." The symptoms are nearly the same as in inflammation of the lungs. The horse has no disposition to lie down or to move about; the neck will be the same as in lung fever; nostrils distended, and the membrane of the nose very red; he breathes very hard, with a kind of grunt; the legs will be cold, and he will have a hard full pulse. The blood, however, is not obstructed in its passage through the lungs. By pressing on his side, he will give symptoms of pain in a very decided grunt.

CURE.—Blister both sides of the chest, and bathe the legs in hot water. Or broil bran, and then put an old pantaloon leg on over this, and fill in around with hot bran; this will get up a circulation in the extremities. Then give one and a half drachms emetic tartar, two drachms digitalis, three drachms nitre. Keep well covered with warm clothing. Use one ounce of cream tartar in two quarts of tepid water, for a drink. Be sure to keep the legs warm by hot applications and bandages. Use these medicines until a cure is affected.

Staggers

There is but little of this disease in the Northern States, but it exists to a great extent in all the Southern. The food is the principal cause; there is a great quantity of diseased corn used and too much of any kind is usually given; then as much water as he will drink after it, which generates an unhealthy gas in the stomach, and causes distention; the blood is inflamed and rushes to the head, and the brain is somewhat inflamed. The horse staggers about, or becomes sluggish, and stands with head down; the eyes look glassy; in some cases, he will rear, and fall back, or run; he will not eat, but hold the hay in his mouth, and then drops it; he sweats profusely, and in a short time will fall and die.

CURE.—First, physic with one ounce of aloes dissolved in warm water, and given as drench; in one hour, give half an ounce more of the aloes, and continue this until it operates. As soon as the first aloes is given blister the head with a strong fly blister, apply this over the brain, from below the ear nearly down to the eye; then bathe the legs with as hot water as you can use, and bandage them with flannel, keep them as warm as possible. Then give one drachm of digitalis, one and a half of emetic tartar, and three drachms of nitre. If it is to be repeated, use half of the above amount in three hours. Then if he has any disposition to eat, give bran mash, with one table spoonful of pulverized resin; use this for a week as he recovers, and feed and work lightly until he regains his strength. If he is bound up, it may be necessary to use injections, which are always beneficial.

Warbles, Sitfasts and Saddle Galls

These are caused in many cases by using a blanket under the saddle in hot weather, thus scalding the back, and causing these little lumps to appear; and when they ulcerate, they are called "sitfasts." The ulcer has a calloused spot in the center. When they first make their appearance, rest will remove them; but if the horse is to be used, you must remove he stuffing

from the pad of the saddle, that the bearing may not come on the ulcer. Bathe in strong salt water, to remove the enlargement; but if it does not effect this, and it is really a sitfast, apply a blister, this will dissolve it, then apply the resin and honey ointment to heal it. A horse with high withers, long back, and broad loins, will make the best saddle nag, and carry his rider with ease. In hot weather, it is a good practice to bathe the back with salt water, when the saddle is removed at noon and night.

For Inflammation of the Lungs in a Horse

First a thorough bleeding, then would give tincture veratrum varide, half an ounce; laudanum, four ounces; tincture aconite, quarter of an ounce; shake well together and give a half tablespoonful every three or four hours, in some water, well sweetened; and should it not bring down the pulse, the dose can be gradually increased to a tablespoonful, and as soon as the horse recovers so as to eat and lie down naturally, would keep him on hay alone perhaps, with a few carrots or potatoes, and daily give a bran mash with saltpetre, crude antimony and sulphur for ten or fifteen days, and you will prevent dropsy of the chest, which is a sequel of that disease.

For Colic in Horses

Sulphur ether, one pint; aromatic spirits ammonia, one pint; sweet spirits nitre, two pints; opium, quarter of pound; asafœtida (pure), half pound; camphor, half pound; put in a large bottle, let stand fourteen days with frequent shaking and it will be fit for use. Dose two ounces every two, three, or four hours until the horse is relieved. Should be given in water well sweetened.

ANOTHER REMEDY.—One ounce laudanum; one ounce sweet spirits of nitre; one ounce tincture asafœtida, one tablespoonful capsicum; from two to three ounces carbonate soda; half pint whiskey; half pint water. Mix and give at one dose, and if not better in twenty-five minutes, repeat half doses.

Stoppage of Water

This disease in most cases is caused by allowing the horse to become foul, and what is called a beam thereby forms in the end of penis. The horse will stand and weave or stretch out; then paw and kick his belly with his hind legs; he may drop down in harness, and sometimes break out in a profuse sweat. The only thing to be done in this case is to draw his yard carefully, and run the finger around the head, where you

will find two or three hard substances; withdraw them and wash the sheath clean and grease it with lard.

In some cases it originates from contraction of the muscle of the loins or inaction of the kidneys. To cure this, bathe the loins with hot water for half an hour; then bathe with hot vinegar and pepper-sauce; then cover the loins with three or four thicknesses of blankets. Then mix of turpentine one ounce, sweet spirits of nitre two ounces, and give as a drink. Give a bran mash with one tablespoonful of resin in it every day for a week and the cure is complete.

Colic or Cholera in Mules

This appears to be a prevalent disease on the plantations, and is brought on by giving too much food and water at one time, and then immediately putting him to work. The hard work retards digestion, and a gas is generated fro the food and water, which fills the stomach and bowels and also sets the bots to work. The gas would kill the bot, and to save himself, he bores into the membrane of the stomach, or tries to get out at the meat-pipe or by the passage between the stomachs. They will thus stop up the passage, sometimes, and kill the animal. But if the passages are open, the gas will pass into the bowels, and then the disease is colic. He will be much swollen and distended, breathe short and hard, and will fall or lay down and get up; ears will lop over on each side, and eyes look dull and heavy. When the mule is first taken, take him out of the stable and keep him as still as possible, and in the majority of cases he will recover without the use of medicine.

CURE.—If he does not thus get over it, take one ounce laudanum; one ounce ether, two tablespoonfuls soda, two drachms of peppermint; put with half pint hot gin, and give as a drench. Then give injection of one ounce of aloes dissolved in warm water. This is an effectual cure.

Colts Brought Up by Hand

It is a frequent remark, that cosset colts, are worse to break than those which were never handled up to two or three years old. The reason is that they are spoiled by petting them, and allowing them to do as they please. When playing with colts, you should always make them do as you wish, and then, if they are learned to do as you will in playing, they will not become stubborn when you wish them to work. The great object in laying the horse down is to make him understand that we can do as we please with him, and then he sees there is no use resenting, and we have gained our point. After this, he

obeys without difficulty, and that stubborn, willful feeling is subdued. You may then teach him anything you please.

Vegetable Caustic

Make a strong lye of hickory or oak ashes, put into an iron kettle and evaporate to the consistency of thin molasses; then remove into a sand bath, and continue the evaporation to the consistency of honey Keep it in a grand stopped glass jar.

This caustic is very valuable in fistulas, cancers, scrofulas and indolent ulcers, particularly where there are sinuses necrosis (or decay or bone) and in all cases where there is proud flesh, and also to excite a healthy action of the parts. It removes fungous flesh without exciting inflammation, and acts but little except on spongy or soft flesh.

To Cure Warts

Take corrosive sublimate and red precipitate, powdered and mixed, equal parts, and it will cure the worst wart in the world on horses or cattle.

If the wart is large and loose, tie a fine, strong cord around it close to the skin. In a short time the wart will come off, then apply the powder until the wart is eaten down below the skin, then wash off and rub on a little sweet oil, and it will soon heal over. If the wart is dry, scratch it with a pin or point of a knife until it bleeds, then rub on the powder. It will make a dry scab; pick off the scab and put on the powder again until it is all eaten off.

Hoof Medicine

Take Rosin, four ounces; beeswax, five ounces; lard, two pounds; melt together, pour it into a pot, add three ounces turpentine; two ounces finely pulverized verdigris, one pound tallow; stir all until it gets cold. This is one of the best medicines for the hoof ever used. It is good for corks or bruises of the foot.

To Restore the Appetite

Use of pulverized caraway seeds and bruised raisins, four ounces each, of ginger and palm oil, two ounces each. Always use twice as much of the first as of the last, in whatever quantity you wish to make it. Give a small ball once a day until the appetite is restored—use mashes at the same time.

Stoppage of the Bowels

Take two quarts of soft fresh horse manure, add one quart of

boiling hot water, then strain through a common cloth strainer —give one pint as a drench. This will not fail for man or beast. For a man, dose one tablespoonful every hour until it acts.

Salve for Man or Beast

For all kinds of old sores, use honey and rosin, melted together; add lard enough to make a paste; when cool, it is fit for use. There is no salve better than this, its medicinal qualities are excellent.

To Soften the Feet

Spirits of tar, two ounces; fish oil, four ounces. This is very penetrating, to use where the feet are hard and brittle. Rub it in with a brush upon the crust and sole every night.

Stifle

This is a strain of the stifle muscles only; the stifle joint never gets out; if it should the horse would be worthless. The stifle shoe should never be used.

CURE.—Take the whites of six eggs, and two ounces of alum, pulverized; mix well together, and rub on the stifle muscles; dry with a hot iron. One application will probably be sufficient.

2.—One ounce of sugar lead, one pint of alcohol, mix and apply three or four times a day, until a cure is affected.

Tonics

Where it is necessary to use tonics, gentian is one of the best vegetables, especially in chronic debility. It is best united with camomile and ginger. Gentain, four drachms; camomile, two drachms; ginegr, one drachm; give in balls.

Mercurial Ointment

Of quicksilver, one ounce; lard, three ounces; stir until there are no globules to be seen. This is used sometimes in preparing sprains and spavins for the regular spavin ointment rubbed on once a day, for two or three days, before using the ointment.

For all slints, bruises, and swellings of the limbs, use thoroughwort and mullen, steeped and applied as hot as possible, with bandages.

Spavin and Ringbone

Cantharides four ounces, origanum two ounces, sulphate of one ounce, Venice turpentine three ounces, murat. tinct.

iron, two ounces, verdigris three ounces, oil vitriol two ounces, fresh lard one pound. Shave the hair from the part diseased, and rub the parts with the medicine. You must use your own judgment in using this medicine; that is in the length of time necessary to remove the callus. It must be used every other day, this will dissolve the ossified substance, and ooze it out. When you see the lump is diminished enough, then use the same astringent as I have directed in the other cure, that is, white oak bark and alum, a quarter pound to a half gallon of bark juice, boiled down to a strong decoction. Use morning and evening.

Receipt

The first-named disease comes at the lower part of the gambre joint. It is caused by a strain or bruise—either will cause it; this opens the pores and causes the substance to concentrate at one place, and forms in a gristly or bony substance, and causes the joint to become stiff and sore. The horse sometimes becomes lame before enlargement is perceivable. In some cases it will continue to grow for two years; it will then become a hard bone. The enlargement at this stage cannot be removed—you may kill the disease, and kill the lameness. The great object with this disease is stop the leakage. There has nothing been used as an astringent, when by removing the lump without the astringent it leaves the parts loose and open but if used it closes and stops the pores, then, by letting the horse stand until it heaves, becomes firm.

CURE.—Four ounces green euphorbium, fine, one ounce Spanish flies pulverized, four ounces corrosive sublimate, four ounces red precipitate, six ounces white pine turpentine, four ounces iodine, six ounces lard, melt the lard and turpentine together, after it is nearly cold, add the other articles and stir until it is cold, it is then ready for use.

Then rub the enlargement until it is warm, then rub on the ointment and let it remain for twenty-four hours, then take lard and rub upon it until all of the ointment is taken out. Let it remain one day, then apply the medicine again, keep this up until the enlargement is gone; then use oak bark as an astringent to bathe it in, and bandage until well, keeping it well saturated with the oak bark water.

You may use the same ointment for "thorough-pin," after it is blistered sufficiently deep, use the oak bark and bandage until healed. The same for blood spavin and wind puffs, It will be necessary to use a pad under the bandage in "thorough-pin," to make it bear evenly.

Keep the horse quiet, while using these medicines and on a low diet.

To Clean and Oil Harness

First take the harness apart, having each strap and piece by itself, then wash it in warm soap suds. When cleaned, black every part with the following dye: One ounce extract logwood, twelve grains bichromate of potash, both pounded fine, when put into two quarts of boiling rain water, and stir until all is dissolved. When cool, it may be used. You can bottle and keep for future use if you wish. It may be applied with a shoe-brush, or anything else convenient. When the dye has struck in, you may oil each part with neats foot oil, applied with a paint brush, or anything convenient. For second oiling use one-third castor oil, and two-third neatsfoot oil mixed. A few hours after, wipe clean with a woolen cloth, which gives the harness a glossy appearance.

The preparation does not injure the leather or stitching, makes it soft and pliable and obviates the necessity of oiling as often as is necessary by the ordinary method.

Strength of Food for Horses

It will, perhaps be interesting to the horseman and farrier to know how much nutritive matter in contained in the different kinds of food given the horse. The quantity cannot be considered as expressing the actual value of each, because other circumstances beside the simple quantity of nutriment seem to influence their effect in supporting the strength and condition of the horse. Yet many a useful hint may be learned when the farmer looks over the produce of his soil. The list is taken from Sir Humphrey Davy's Agricultural Chemistry:

1000 parts of wheat contain 955 parts of nutritive matter.

"	"	barley	"	950	"	"
"	"	oats	"	744	"	"
"	"	peas	"	573	"	"
"	"	beans	"	570	"	"
"	"	potatoes	"	230	"	"
"	"	red-beets	"	148	"	"
"	"	parsnips	"	99	"	"
"	"	carrots	"	98	"	"

Of the grasses, 1000 parts of the meadow catstail contains, at the time of seeding, 98 parts of nutritive matter; narrow-leaved meadow grass in seed, and sweet-scented soft grass in flower, 95; narrow leaved and flat-stalked meadow grass in flower, fertile weadow grass in seed, and talefescue in flower 93; creeping soft grass in flower, 78; common turnips, 42; long-rooted clover, 39; white clover 32; and lucerne 23.

To Cure Cribbing

If caused by irritation of the teeth growing too near together saw between the upper and lower front teeth. If a simple habit, arrange the stall so as to make it impossible for him to crib. This you can do by making the stall plain, with a simple box manger in front, rather low, but extending the whole width of the stall. Immediately over the front edge of this plain box manger, hang a roller of about six or seven inches in diameter, on pivots, which must be so arranged that it will turn easily. This roller, extending clear across the manger, offers the only means within reach on which to crib. The horse, in cribbing, will press the front teeth firmly upon this roller, pulling down and towards him, which causes the roller to turn from under his mouth, and he is defeated in his efforts. There is no trouble in breaking a young horse of this habit by this means. A very good way is to feed a horse from a basket hung loosely by a cord to something overhead. The roller, properly adjusted, is however, much the best means.

To Prevent Horses Jumping

Have a good firm strap halter made that will fit the horse nicely, with a wide strap stitched to each side so as to come over the eyes. Cut holes in this strap over each eye; over these eye-holes put fine wire-cloth, supported nicely by wires, so that it can not possibly touch the eyes. Before a horse attempts jumping over a fence, he will put his head over to calculate upon the height and distance he is about to jump; but by looking through this wire-cloth everything is so magnified in appearance, that he is disconcerted in his efforts to do so, and is afraid to jump.

Bots or Grubs

There are a great many horses lost with this disease. It is impossible to put anything down a horse to kill a bot, that would not kill the horse. I will take what the most of farriers will prescribe for this disease, and kill any horse in three or four days, and will give you reasons for it. First, a bot never works when the stomach is in order; as soon as the gasses of the stomach become deranged, the bot goes to work—and you can derange the stomach by giving strong medicine. The bot goes to work in the maw; after he gets worked in a short distance, you can put nothing there that he can taste, without letting loose from the maw; and by giving strong medicine, anything that has any tendency to burn or hurt the bot, he would work into the maw to get rid of the medicine; and if you put any sweets down, the bot could not eat it, because his head is in.

Now, I will give you a sure and positive cure for this disease. Take a bucket half full of hot water; then procure a quart bottle; set the bottle down in the hot water; then bleed the horse in the neck vein, and let the blood run into the bottle. When full, drench the horse with this hot blood. The blood goes to the maw so much hotter than the natural stomach, that the bot becomes relaxed and lets loose. He then sucks his fill of this sweet blood, and passes off from the horse.

Quinsy

The symptoms of this disease are something like inflammation of the lung—difficulty of breathing, eyes inflamed, nostrils distended, breath quick and short; he stands with his head down, and has no disposition to move about, and you will hear a rattling in the throat, caused by an accumulation of mucous matter in the glotis or throttle, which becomes swollen so as to be perceivable on the outside of the throat. A horse with this disease sometimes has an inclination to eat, but with the lung fever—never. Quinsy is entirely an affection of the glands of the head and throat distinct from the lungs.

CURE.—Take one ounce pulverized aloes, to one half ounce oil of sassafras, mix with a little flour to make it thick, and then make into balls the size of a black walnut, or the yolk of an egg—this quantity is for a dose. Open the mouth, pull out the tongue, put the ball on the roots of the tongue, this is the easiest way to give the medicine. A thick heavy blister should be drawn on the throat, and a mustard or fly poultice to draw the inflammation to the surface. Bathe the limbs with hot water, and bandage them from the hoof to the knee; bathe three or four times a day. When he has a disposition to eat, give a mash of scalded wheat bran—two quarts twice a day. Give no hay or grain for three or four days; then if he breathes easy you can increase the feed. Keep the horse from the wind and well blanketed.

Distemper

This is a disease that all colts are liable to; and, if taken in time, there will be no danger of swelling in the throat. This frequetly causes thick wind. By distempers breaking in the throat, it becomes a callous where the opening in the htorat was; then by choking the horse there is not room for the wind, and he wheezes; but as soon as he stops, he breathes easy again. When this disease first makes its appearance, bleed freely from neck vein; then give from a half to one pint of linseed oil, with three drachms of sassafras oil; this thins and purifies the blood.

There are two different modes of nicking. I will give the best and easiest. To make a horse carry an elegant tail is attended with some uncertainty. It much depends upon the spirit, disposition, form and vigor of the bone of the tail, etc. A horse that has good spirits, tolerable shape, and a small bone in the tail can be made to carry an elegant tail with the greatest ease, particularly if he carries a tolerable natural tail; but a dull, leather-headed, flop eared horse, with a remarkably large bone in the tail, will set you a task although you break the bone in two or three places. Indeed, there is so much difference in horses, that a great deal of judgment must be exercised about the best mode to be adopted for the accomplishment of the object in view.

Nothing can more disfigure the appearance of a horse than to be half nicked. The form of the tail, when this unfortunately happens, depart from the simplicity of nature, and never attains the elegance of art.

I shall now proceed to the best method of nicking every description of horse, and which, if well attended to, will seldom or never fail to succeed. The horse should be confined in stocks fitted for that purpose. The tail then should be plaited up, and clubbed at the end, turned over a small stick and securely tied with a string. Being provided with a knife made for that purpose, turn the tail up within a direct line with the back; commence the operation by makin an incision about one inch from the rump close to the hair, cut the cords in one place on each side, leaving an incision only the size of the knife blade; be very careful not to touch the bone with the knife, for if so, it would create inflammation, and the hair would come out. Great pains should be taken to have the weights equal, in order to keep the tail in a perpendicular direction, and prevent it from turning to either side during the time of healing, as a horse that carries his tail to one side, instead of being elegantly nicked, is ruined.

The horse many times turns a crooked tail before he has been nicked. To straighten the tail, cut the top cord—the under cord depresses the tail, and the top one raises it. When standing, the tail is straight; you will see at once that it is the top cord. In cutting the cord to straighten, cut the long cord, and the short cord will pass by on a lap and grow together, leaving the tail as strong as ever. Pulling in not required in straightening the tail.

Scours

This is a disease which requires no description—you will know it when it comes. It is the same as cholera in a man but

is very easy to manage. In a warm climate it is very dangerous, as two-thirds of the horses taken with it, die in three or four days.

CURE.—Boil red or white oak bark to a strong ooze; put two tablespoonfuls of cream of tartar, to one quart of this decoction; give to drink or as a drench—then use the bark water for injection. Keep this up until the purging is stopped, then give a mash of scalded wheat bran twice a day. Give no hay or grain, or you will cause a relapse. He will have a good appetite, but be very careful for several days, and when you commence feeding, feed very light. A positive cure.

Blind Staggers

The cause of this disease is too much food and water. In giving as much as a horse can eat, then give as much water as he will drink, in driving, the grain becomes swollen and the stomach distended by undigested food. The distention of the stomach prevents the passage of the blood, which causes it to flow to the head, and makes him crazy and blind. Sometimes he will fall back, at other times run, and is apt to run off from a bluff or against any object that may be in his way.

CURE.—If the disease is in its worst stages, split the skin of the forehead and fill with salt and black pepper; then, if you can get sassafras roots, boil to a tea, give one gallon twice a day, bleed one gallon from the neck vein. Feed light with bran mash; do not use any very hearty food for two weeks. This is a sure cure.

Weakness Across the Loins

This originates many times from a stoppage of water. It is not always what would be called gravel, it may be from contraction of the muscles across the loins. The more the horse strains, the more contraction it would cause. He becomes stiff, and it is difficult for him to move his hind parts.

CURE.—Give one ounce of pulverized aloes; one ounce sweet spirits of nitre, one ounce oil sassafras.. Give this as one dose after making into small balls. Then bathe the loins with hot pepper sauce. Blanket the horse well, putting several thicknesses over the loins. As soon as he can stand, give two quarts bran mash, with one tablespoonful of powdered rosin. Give this for two or three days, and keep the loins as warm as possible. Also use a liniment, origanum, two ounces, oil of sassafras two ounces; spirit of turpentine two ounces, well mixed together, and bathe the loins twice a day.

Stocked or Swollen Legs

This is caused by sudden heats and colds.

CURE.—Bathe the legs, from the hoof to the knee, in as hot water as he will bear, and then bandage them; the hot water opens the pores and thins the blood, that has become thick, and will not circulate well. Make a strong tea of sassafras roots, and give it to drink. If not easily procured, give as a purge one pint of linseed or castor oil, half an ounce of oil of sassafras. Feed light, give bran mash with one tablespoonful of cream of tartar for a few nights.

To Cure Horse Distemper

If the glands of the neck are not swollen much, give half of a three cent paper of smoking tobacco, morning and evening, in a warm bran mash, and give no hay, but a little fine cut straw, wet, with bran mixed in. If the glands of the neck are swollen, then apply a warm poultice made of wheat bran and hot vinegar, changing as often as the poultice gets dry and be sure to get down all you can of flaxseed tea, or slippery elm tea will answer the same purpose; and let this be his constant drink. Be cautious to keep the horse from taking colds, in any way, and keep on a blanket, and thus you will save many a noble animal. Be cautious never to bleed your horse during the horse distemper, or physic him any more than what you will be able to do with the warm bran mash.

Remedy for Bots

Which will remove them in a few days: Take of oil of turpentine eight ounces, alcohol one quart; mix and bottle for use. Dose, five ounces in the horse's feed once a day for eight days, and this will effectually remove the last vestige of the bots.

For Inflamed Swellings or Lame Shoulder

Equal parts oil of amber, oil of spike, camphor gum, ether.

To Cure Heaves

Oil tar, 1 oz.; oil amber 1 oz. Mix and give 15 or 20 drops in feed daily.

Physic Ball

Barbadoes aloes, 1 lb., syrup buckthorn, 3 ounces, cod liver

oil, 3 ounces, melt the whole and stir till cold. In winter, add a little water, make into eighteen pills and give one every four hours, or as much as will move the bowels.

Diuretic Drops

That are reliable for stoppage of water, foul water, or inflammation of the kidneys in all cases.

Take of sweet spirits of nitre 4 ounces, balsam copavia, 2 ounces, oil juniper two ounces, spirits of turpentine two ounces gum camphor pulverized one ounce, mix all together, and shake well, bottle and it is ready for use, for man or beast, under all circumstances where a diuretic is required.

Dose.—For a horse one ounce, in half a pint of milk once in six hours, for a man one teaspoonful in a tablespoonful of milk once in six hours. Be sure to shake the ingredients up well before turning out for use.

Colic

This is caused by giving too much feed and water, or by watering often on the road. The water reduces the juices of the stomach, disabling digestion and causing the grain to swell generates a gas in the stomach, which, passing into the bowels causes the acute pain of Colic. He becomes restive, lies down, rolls about and gives many signs of pain. Many times the horse has bots and colic at the same time, the only difference in the symptoms being that in colic the ears are cold, and in bots they are warm.

CURE.—Take one and a half ounces of laudanum, one ounce of ether, two tablespoonfuls soda, in half pint of warm water, give as a drench. Do not exercise the horse with this disease, as exercise causes the gases to move from one part of the bowels to another, each time causing pain, therefore keep him as quiet as possible.

Fistula and Polevil

These diseases are both of the same nature, caused by a bruise, and the other part becomes swollen, and a mattery substance forms in the flesh; and, as the disease becomes seated, it fills in with pips and roots and increases the inflammation. When this disease first makes its appearance, it can be driven away by blistering, and drawing the inflammation to one point; but after it forms in roots, or pips, the only way of getting rid of it is to eat out or kill the roots of the disease.

The most effectual way of doing this is to take of euphorbium pulxerized one ounce; Spanish flies pulverized one half ounce; tincture of cantharides one half ounce; iodine one ounce;

corrosive sublimate, one ounce; red precipitate, one ounce; white pine turpentine, one ounce and a half; lard, one ounce and a half. Melt the lard and turpentine together, and when it becomes blood warm, as it is cooling off, add the other articles. Use a large dish to mix them in, for when you put them together the mixture will foam; stir until cool, it is then ready for use. If the sore has not broken, use it on the outside until you draw the disease to the surface. If it has broken, put the salve in the wound, it will eat out all of the diseased flesh. When you wish to heal the wound, wash clean with soap, then use as a salve, powdered rosin and honey, the best healing salve for horse flesh ever used.

FARMERS AND STOCK OWNERS' DEPARTMENT

RAREY'S DIRECTIONS FOR BREAKING AND TRAINING OF HORSES.—In training horses you must remember that there are certain natural laws that govern them. For instance, it is natural for him to kick whenever he gets badly frightened; it is natural for him to escape from whatever he thinks will do him harm. His faculties of seeing, hearing and smelling, have been given him to examine everything new that he is brought in contact with. And so long as you present him with nothing that offends his eyes, nose or ears, you can then handle him at will, notwithstanding he may be frightened at first, so that in a short time he will not be afraid of anything he is brought in contact with. All of the whipping and spurring of horses for shying, stumbling, etc., is useless and cruel. If he shys, and you whip him for it, it only adds terror, and makes the object larger than it would otherwise be; give him time to examine it without punishing him. He should never be hit with the whip under any circumstances, or for anything that he does. As to smelling oil, there is nothing that assists the trainer to tame his horse better. It is better to approach a colt with the scent of honey or cinnamon upon your hand, than the scent of hogs for horses naturally fear the scent of hogs, and will attempt to escape from it, while they like the scent of honey, cinnamon, or salt. To affect a horse with drugs you must give him some preparation of opium, and while he is under the influence of it you cannot teach him anything more than a man when he is intoxicated with liquor. Another thing, you must remember to treat him kindly, for where you require obedience from any subject, it is better to have it rendered from a sense of love than fear. You should be careful not to chafe the lips of your

colt or hurt his mouth in any way, if you do he will dislike to have the bridle on. After he is taught to follow you, then put on the harness, putting your lines through the shaft straps along the side, and teach him to yield to the reins, turn short to the right and left, teach him to stand still before he is ever hitched up; you then have control over him. If he gets frightened, the lines should be used as a telegraph, to let him know what you want him to do. No horse is naturally vicious, but always obeys his trainer as soon as he comprehends what he would have him do; you must be firm with him at the same time, and give him to understand that you are the trainer, and that he is the horse. The best bits to be used to hold a horse, to keep his mouth from getting sore, is a straight bar-bit, 4-1/8 inches long between the rings; this operates on both sides of the jaw, while the ordinary snaffle forms a clamp and presses the side of the jaw. The curb or bridoon hurts his under jaw so that he will stop before he will give to the rein. To throw a horse, put a rope 12 feet long around his body in a running noose, pass it down to the right fore foot through a ring in a spancil, then buckle up the left or near fore foot, take a firm hold of your rope, lead him around until he is tired, give him a shove with your shoulder, at the same time drawing up the right foot which brings him on his knees, hold him steady, and in a few moments he will lie down. Never attempt to hold him still, for the more he scuffles the better.

Take your colt into a tight room or pen, and with a long whip commence snapping at the colt's hind leg, taking care not to hit above the hocks, stopping immediately when the colt turns his head towards you; while his head is towards you, approach him with the left hand extended towards him, holding your whip in the right ready to snap him as soon as he turns his head from you. In this way you can soon get your hands upon him. As soon as you have done this, be careful to caress him for his obedience, and snap him for disobedience. In this way he will soon learn that he is safest in your presence with his head towards you, and in a very short time you cannot keep him from you. Speak kindly and firmly to him all the time caressing him, calling by name, and saying, "Ho, boy," or "Ho, Diana," or some familiar word that he will soon learn.

If a colt is awkward and careless at first, you must bear with him, remembering that we too, were awkward when young; allowing him his own way, until by degrees he will come in. If he is wilful, you must then change your course of treatment, by confining him in such a way that he is powerless for harm until he submits. If he is disposed to run, use my pole check on him; if to kick, fasten a rope around his under jaw, pass it

through the collar and attach it to his hind feet. In this way one kick will cure him, as the force of the blow falls on the jaw. If he should be stubborn, lay him down and confine him until you subdue him, without punishing him with the whip.

Colts should be broken without blind-bridles; after they are well broke, then you may put on blinds. Bridles without blinds are the best unless you want to speed your horse, then it will be necessary to keep him from seeing the whip. Colts should be well handled and taught to give readily to the rein before they are hitched up. If you hitch them up the first thing and they become frightened, then you have no control over them; but if you teach them to start, stop, and stand at the word before they are hitched, then you can govern them.

CRUELTY TO HORSES—Besides the cruel punishment inflicted upon horses by the careless and heartless driver, he is subjected to severe punishment in the winter season, by being compelled to take frozen bits into his mouth in cold weather, tearing the skin from the tongue and the roof of his mouth, producing a heavy inflammation in the mouth and throat; he gets poor, hidebound, and the sympathetic nerves of the head take up the inflammation, carry it to the head and eyes, frequently producing blindness, and a hundred other diseases. The whip should be used as an instrument of pleasure instead of torture; and your bits should be wound with flannel or leather, so that no frozen iron will come in contact with his mouth, lips or tongue.

RAREY'S LINIMENT.—Sulphuric ether, 4 ounces; hartshorn, 4 ounces; oil of origanum, 4 ounces; alcohol, 4 ounces; sweet oil, 4 ounces. Shake well before using. For sprains on horses etc., apply by rubbing and cover with a tight flannel bandage. For headache, rub a little on the temples and apply a bandage wet with the liniment to the forehead.

RAREY'S WIZARD OIL.—Oil of origanum, 6 ounces alcohol, 6 ounces, spirits turpentine, 1 ounce; camphor, 1 ounce. Shake well before using.

RAREY'S DIRECTIONS FOR SHOEING HORSES.—"There are very few blacksmiths that ever once think what a complicated piece of machinery the foot of a horse is, and by one careless blow they frequently stop the working of this machine. The majority of smiths, as soon as they pick up a horse's foot, go to work paring the heel, from the fact that it is the most convenient part of the foot, and thereby destroy the heel and braces of the foot, causing, in many instances, contracted heels. The heels of a horse should be well kept up and the toe down. By lowering the heels you throw the entire weight of your horse upon the back tendon of the legs, and thereby produce lame-

ness from overtaxing a very important set of tendons. By keeping up the heel you throw the weight upon the wall of the foot. In this position you prevent stumbling, clicking, etc. Next the shoer commences to pare away the sole, thins it down until he can feel it spring with his thumb. Ask him why he does this, and he gives you no reason, except from custom; next comes the bars or braces of the foot, they are smoothed down; next in his ruinous course, comes the frogs of the feet, they are subjected to the same cutting and smoothing process. All the cutting, paring, and smoothing of the soles, bars, or frogs is a decided injury to the horse as well as to the owner. All the corns in the land are produced by this process of paring. The frogs have been placed in the foot by nature to expand the wall of the foot, and as soon as you commence to cut it, the oily substance commences to leak out, it drys up, becomes hard, losing its oily substances, makes the wall hard and dry, inducing it to crack. The nerves of the feet are very sensitive and smiths should be very careful not to prick the foot, as it requires quite a time to relieve them. The foot is a very complicated piece of machinery, and if you keep a horse well shod and his feet in good condition, you can then generally manage the balance. The feet suffer from being kept too dry. Horses that stand on board floors should have their feet wet every day or there should be a vat five inches deep, five feet long, and three wide, filled with water and clay, in which each horse can stand for one hour per week, unless his feet are feverish, then he should be kept in it one hour per day, or until the fever subsides. Another source of injury to horses' feet, is the habit of patronizing cheap blacksmiths. If a man can drive a nail, he then sets up a sign as a farrier or a veterinary surgeon, when in fact he knows nothing of the anatomy of the horse's foot, not having spent any time or money in acquiring the necessary information, he can afford to shoe a few shillings cheaper than a well informed man, but the patrons of such cheap shoeing are generally the sufferers. All horseshoers should be a well skilled veterinary surgeon, or there should be a skillful surgeon attached to every shop. Another source of poor shoeing and injury is the loss of elasticity of the frog, refusing to perform its proper functions; the heel contracts, the foot rolls, and you have a sore horse for ten or twelve months, for it requires this long to relieve a horse's suffering from being badly shod.

Under the circumstances, the first thing that touches the road or the floor of the stall, should be the frog, and the wall of the foot should be kept cut so as not to prevent it from touching at every step; and no man that owns a horse should ever allow a blacksmith to cut the soles, bars, or frogs of his

horse's feet. Nature has adapted the frogs to all description of roads, climates, and weather, without being pared. So many horses have been ruined by this process of paring, that there are now several establishments in this country, that manufacture India Rubber pads, thinking thereby to supply the wasted frog and the elasticity of the natural foot. The frog is insensible to pressure, and you may place the whole weight of your horse on the frog and he will suffer no inconvenience, as may be seen from shoeing with one of my corn shoes; besides this is the only reliable way to cure contracted feet; by throwing the weight upon the frog, you force them up between the walls; it acts as a wedge and soon relieves the contracted feet. Smiths should never have their shoes hot when fitting them as the application of hot iron extracts the oily substance from the hoof. The amount of cruel punishment inflicted on horses by cross grained blacksmiths is another source of poor shoeing. As soon as the horse does not stand, the smith gets angry, and commences whipping and jerking the animal, which only adds terror to it, so that he soon refuses to go to the shop if he can avoid it; it is natural for horses to dislike to be shod, because the hammering shocks the nervous system, until they are accustomed to it. He should be taught to stand, and his feet well handled at home, before he is ever brought to the shop by the owner. You then save the horse pounding, and the smith an immense amount of labor that he never gets any pay for, for no man ever thinks of paying anything extra for shoeing a bad horse. The wall of the foot should never be rasped above the nail holes, and as little below the clenches as possible; all the rasping and filing but tends to thin and weaken the wall by cutting the fibers of the foot. The nails should be countersunk into the shoe, so that there will be no chance for the clenches to rife. No horse interferes with the heel or toe; it is always the side of the foot. The habit of turning the inside of the shoe under causes a number of horses to interfere, that would not if they were shod straight in the inside. Spread the heels as wide as possible; set the outside a little under; keep the toes full. For clicking horses, raise the heels high, cut the toes short. For speedy cuts place your toe corks a quarter of an inch to the inside of the centre of your shoe; keep the heels wide apart. For corns, put on a shoe with a prong, for the main rim, so as to cover the entire frog, pare the wall lower than the frog, so as his entire weight will be thrown on the frog.

Have the inner cork not quite so sharp as the outer one, so that if he steps upon the other foot it will not cut it; make the shoes as light as possible consistent with good service, as they are ordinarily made just about one-third too heavy."

To Prevent Horses Kicking in the Stall.—Fasten a

short trace chain about 2 feet long, by a strap to each hind foot. A better way is to have the stalls made wide enough so that the horse can turn in them easily. Close them with a door or bars, and turn the animal loose. After a while he will forget the habit, and stand tied without further trouble.

To Cure Broken Legs.—Instead of summarily shooting the horse, in the greater number of fractures it is only necessary to partially sling the horse by means of a broad piece of sail, or other strong cloth placed under the animal's belly, furnished with two breechings and two breast girths, and by means of ropes and pulleys attached to a cross beam above, he is elevated, or lowered, as may be required. By adoption of this plan every facility is allowed for the satisfactory treatment of fractures.

Lampas.—This consists in a swelling of the first bar of the upper palate. It is cured by rubbing the swelling two or three times a day with one-half ounce of alum and the same quantity of double refined sugar mixed with a little honey.

Gravel.—Steep one-half pound of hops in a quart of water and give it as hot as the horse can stand it.

Halter Pulling.—A new way to prevent horses pulling at the halter is to put a very small rope under the horse's tail bringing the ends forward, crossing them on the back, and tying them on the breast. Put the halter strap through the ring, and tie the rope in front of the horse. When the horse pulls, he will, of course, find himself in rather an uncomfortbale position, and discontinue the effort to free himself.

Hide Bound.—To recruit a hide bound horse, give nitrate potassa (or saltpetre) 4 ounces, crude antimony 1 ounce, sulphur 3 ounces. Nirate of potassa and antimony should be finely pulverized, then add the sulphur, and mix the whole well together. Dose, a tablespoonful of this mixture in a bran mash daily.

To Prevent Horses From Jumping.—Pass a good stout surcingle around his body; put on his halter, and have the halter strap long enough to go from his head, between his fore legs, then through the surcingle, and back to one of his hind legs. Procure a thill strap, and buckle around the leg between the foot and joint, fasten the halter strap in this—shorter or longer, as the obstinacy of the case may require. It is also useful to keep colts from running where there is likely to be danger from the result; if the thill strap should cause any soreness on the leg it may be wound with a woolen cloth, and it would be well to change it from one leg to another occasionally.

Big Leg.—To cure, use the "Blistering Liniment" with regularity every third hour until it blisters. In three days

wash the leg with linseed oil. In six days wash it clean with soap and water. Repeat every six days until the swelling goes down. If there should be any callous left, apply spavin ointment.

SORE BREASTS.—This generally occurs in the spring, at the commencement of plowing. At times the fault is in having poor old collars, and not having the collar well fitted to the horse's breast; and often, the hames are either too tight or too loose. There is a great difference in horses about getting chafed or galled, and at times it has seemed to be impossible to keep their breasts from getting sore; but a thorough application of strong alum water or white oak bark to the breasts of the animal, three days before going to work, toughen them so that they will not get sore. Another excellent plan is, when you let your team rest for a few moments during work, to raise the collar and pull it a little forward, and rub the breast thoroughly with your naked hand.

THE CHECK REIN ON HORSES.—We desire to register an earnest protest against this barbarous appendage to horses' harness. It retards the horse's progress in every position both while he is at work, and while travelling on a journey. It is both useless and cruel in every sense of the word, without any compensating qualities to recommend it. Mr. Angell, of the "Boston Society for the Prevention of Cruelty to Animals," who has travelled over a great part of Europe in the interests of humanity to our dumb servants, says, that the use of the check rein is confined to America alone, being deservedly discarded everywhere both in England and on the Continent. The reason why it was discarded, was very graphically explained by an extensive horse owner in Glasgow, as he remarked, in conversation with Mr. Angell, that "We canna get the wark oot'o, the horse wi' the check rein." To check rein a horse, is equivalent to trussing a man's head backwards towards his back or heels, and compelling him, while bound in this position, to do duty with a loaded wheelbarrow.

FEEDING HORSES ON THE ROAD.—Many persons, in traveling, feed their horses too much, and too often, continually stuffing them, and not allowing them to rest and digest their food; of course, they suffer from over-fullness, and carrying unnecesary weight. Horses should be well fed in the evening, and must not be stuffed too full in the morning, and the traveling should be moderate on starting when the horse has a full stomach. If a horse starts in good condition, he can go twenty or twenty-five miles without feeding. The provender required by horses while traveling or engaged in ordinary farm work, per day, may be stated thus: Hay 20 pounds, oats three gallons, water four gallons. Muddy water is the best for

horses. Beeves require twenty pounds of hay and six gallons of water per day. Quantity will vary in every case according to the size, condition, breed, etc., together with the kind of work in which they are employed.

ITCH.—To cure a horse affected with itch, first reduce his daily allowance of food, putting him on a low diet, and then give him a teaspoonful of a mixture of equal parts of sulphur and antimony, and at the end of a week or ten days the sores will have disappeared and the horse will be covered with a fine coat of new hair.

URINE STOPPAGE.—Symptoms; Frequent attempts to urinate, looking around at his sides, lying down, rolling and stretching. To cure, take half pound of hops, three drachms oil of camphor, grind and mix. Make this into three pills. Give one every day with a drench made of a small spoonful of saltpetre and two ounces of water. This will cure as a general thing.

TO CURE BALKY HORSES.—One method to cure a balky horse is to take him from the carriage, whirl him rapidly around till he is giddy. It requires two men to accomplish this, one at the horse's tail. Don't let him step out. Hold him to the smallest possible circle. One dose will cure him, two doses are final with the worst horse that ever refused to stir. Another plan is to fill his mouth with gravel from the road, and he will at once go, the philosophy of this being that it gives him something else to think about.

DR. COLE'S KING OF OILS.—One ounce green copperas; two ounces white vitriol; two ounces common salt; two ounces linseed oil; eight ounces molasses. Boil over a slow fire fifteen minutes in a pint of urine; when almost cold, add one ounce of oil of vitriol and four ounces spirits of turpentine. Apply to wounds with a feather. A very powerful linament.

SLOAN'S HORSE LINIMENT.—Four ounces resin; four ounces bees-wax; lard, eight ounces; honey, two ounces. Mix slowly and gently, bring to a boil; then add less than one pint spirits of turpentine; then remove and stir till cool. Unsurpassed for horse flesh, cracked hoofs, human flesh, etc.

MEXICAN MUSTANG LINIMENT.—Petroleum, olive oil, and carbonate of ammonia, each, equal parts, and mix.

MERCHANT'S GARGLING OIL.—Take two and a half gallons linseed oil; two and a half gallons spirits turpentine; one gallon western petroleum; eight ounces liquor potass.; sap green, one ounce; mix all together, and it is ready for use.

ARABIAN CONDITION POWDERS.—Ground ginger, one pound; sulphuret of antimony, one pound; powdered sulphur, one pound; saltpetre, one pound. Mix all together, and adminis-

ter in a mash, in such quantities as may be required. The best condition powder in existence.

BLISTERING LINIMENT. — One part Spanish flies, finely powdered; three of lard, and one of yellow resin. Mix the lard and resin together, and add the flies when the other ingredients begin to cool. To render it more active, add one pint of spirits of turpentine.

MEDICATED FOOD FOR HORSES AND CATTLE.—Take linseed cake and pulverize or grind it up in the shape of meal, and to every fifty pounds of this ingredient add ten pounds Indian meal; two pounds sulphuret of antimony; two pounds ground ginger, one and three quarter pounds saltpetre, and two pounds powdered sulphur. Mix the whole thoroughly together, put in neat boxes or packages for sale or otherwise as desired, and you will have an article equal in value to Thorley's Food, or almost any other preparation that can be got up for the purpsoe of fattening stock or curing disease in every case when food or medicine can be of any use whatever. This article can be fed in any desired quantity, beginning with a few tablespoonfuls at a time, for a horse, mixing it with his grain, and in the same proportion to smaller animals, repeating the dose and increasing the quantity as the case may seem to require.

LOTION *for* MANGE.—Boil two ounces toacco in one quart water; strain; add sulphur and soft soap, each two ounces.

FOR STRAINS AND SWELLINGS.—Strong vinegar saturated with common salt, used warm, is good for strains and reducing swellings. One ounce of white vitriol, one ounce of green copperas, two teaspoonfuls of gunpowder, all pulverized together, and dissolved in one quart of soft water, and used cold, rubbing in thoroughly, is one of the best applications known for reducing swellings.

HOOF-BOUND WASH.—Spirits turpentine four ounces, tar four ounces, whale oil, eight ounces. Mix and apply to the hoofs often.

TO TOUGHEN HOOFS.—Wash them frequently in strong brine, and turn brine upon the bottoms and soak a few minutes each time.

SCRATCHES.—Cut off the hair close, and wash the legs in strong soap-suds or urine, or wash with warm vinegar saturated with salt, and afterwards dress over with a small quantity of hog's lard.

COUGH.—Quit feeding musty hay, and feed roots and laxative food. Sprinkle human urine on his fodder, or cut up cedar boughs and mix with his grain, or boil a small quantity of flax-seed, and mix it in a mash of scalded bran, adding a few ounces of sugar, molasses, or honey. Administer luke-

warm. If there should be any appearance of heaves, put a spoonful of ground ginger once per day in his provender, and allow him to drink freely of lime water.

SPLIT OR BROKEN HOOF.—Let the blacksmith bore two holes on each side of the crack or split; pass long nails through the holes and clinch tight. After anointing with the hoof-bound liquid, it will soon grow together.

COLIC CURE.—Bleed freely at the horse's mouth; then take one half pound raw cotton, wrap it around a coal of fire, so as to exclude the air, when it begins to smoke, hold it under his nose till he becomes easy.

To CURE DISTEMPER.—Take one and a quarter gallons of blood from the neck vein; then administer sassafras oil one and a half ounces. Cure speedy and certain.

FOUNDER CURED IN TWENTY-FOUR HOURS.—Boil or steam stout oat-straw for half an hour, then wrap it around the horse's leg quite hot, cover up with wet woolen rags to keep in the steam; in six hours renew the application, take one gallon of blood from the neck vein, and give one quart linseed oil. He may be worked next day.

CURE FOR STAGGERS.—Give a mess twice a week composed of bran, 1 gallon; sulphur, 1 tablespoonful; saltpetre, 1 spoonful; boiling sassafras tea, one quart; asafœtida, 1 1-8 ounces. Keep the horse from cold water for a half day afterwards.

RING-BONE AND SPAVIN CURE.—Venice turpentine and Spanish flies, of each 2 ounces; euphorbium and aqua-ammonia, of each 1 ounce; red precipitate, one-half ounce; corrosive sublimate, one-quarter ounce; lard, one and one-half pounds. Pulverize all, and put into the lard; simmer slowly over coals, not scorching or burning; and pour off, free of sediment. For ring-bones, cut off the hair, and rub the ointment well into the lumps once in forty-eight hours. For spavins, once in twenty-four hours for three mornings. Wash well previous to each application with suds, rubbing over the place with a smooth stick, to squeeze out a thick, yellow matter. This has removed very large ring-bones.

CURE FOR BONE SPAVINS—$300 RECIPE.—Corrosive sublimate, quicksilver, and iodine, of each 1 ounce. Rub the quicksilver and iodine together; then add the sublimate, and lastly the lard, rubbing them thoroughly. Shave off the hair the size of the bone enlargement; grease all around it, but not where the hair is shaved off, this prevents the action of the medicine, except on the spavin. Then rub in as much of the paste as will lie on a three cent piece, each morning, for three or four mornings. In from seven to eight days, the whole spavin will come out; then wash the wound with suds for an hour or so, to remove the poisonous effects of the paste; afterwards heal up the

sore with any good healing salve, or Sloan's Horse Ointment as per recipe above, keeping the sore covered while it is healing up.

ANOTHER VERY VALUABLE RECIPE FOR RING-BONE.—Pulverized catharides, oils of spike, origanum, amber, cedar, Barbadoes, tar, and British oil, of each 2 ounces; oil of wormwood, 1 ounce; spirits turpentine, 4 ounces; common potash, one-half ounce; nitric acid, 6 ounces; sulphuric acid, 4 ounces; lard, 3 pounds. Melt the lard, and slowly add the acids; stir well, and add the other articles, stirring until cold, clip off the hair, and apply by rubbing and heating in. In about three days, or when it is done running, wash off with soap-suds, and apply again. In old cases, it may take three or four weeks; but, in recent cases, two or three applications have cured.

SPLINT AND SPAVIN LINIMENT.—Oil of origanum, 6 ounces; gum camphor, 2 ounces; mercurial ointment, 2 ounces; iodine ointment, 1 ounce; melt by putting all into a wide-mouthed bottle, and setting it in a kettle of hot water. Apply it to bone spavins or splints, twice daily, for four or five days, and a cure is guaranteed.

POLL EVIL AND FISTULA.—Common potash dissolved in one-half pint of water, 1 pound; add one-half ounce belladonna extract, and one ounce gum arabic dissolved in a little water; work all into a paste with wheat flour, and bottle up tight. Directions: Wash the sores well with Castile soap suds; then apply tallow all around them. Next, press the above paste to the bottom of all orifices; repeat every two days till the callous fibrous base around the poll evil or fistula is completely destroyed; put a piece of oil-cloth over the sores, and afterwards heal up with Sloan's Horse Ointment.

TO TAME HORSES.—Take finely grated horse castor, oils of rhodium and cumin; keep them in separate bottles well corked put some of the oil of cumin on your hand, and approach the horse on the windy side. He will then move toward you. Then rub some of the cumin on his nose, give him a little of the castor on anything he likes, and get eight or ten drops oil of rhodium on his tongue. You can then get him to do anything you like. Be kind and attentive to the animal, and your control is certain.

BEST REMEDY FOR HEAVES.—Balsam of fir and balsam of copaiba 4 ounces, each, and mix with calcined magnesia sufficiently thick to make it into balls; and give a middling sized ball night and morning for a week or ten days.

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